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ALPHABETICAL INDEX
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EDITORIALS

Happy New Year 1
Dollar silver 1
Senator Newlands 1
War excess profits tax 2
Treasury stocks 2
1917 and bituminous coal 3
Mineral leasing bill 4
Combinations under U. S. supervision 4
Government and railroads 5
Capital and production 5
Essential industries 6
Gold production and the war 6
Prices and production 7
Oil shale production 7
Promotion of export trade 8
Silver situation 35
War excess profit tax 35
Government railroad control 37
A hopeful outlook 37
Look higher up 38
Self-regulation of industry 38
Fourteen days of foolishness 39
A mineral dictatorship 40
Price, final dictator of production 41
Federal Department of Mines 67
Patriotism and dishonesty 68
Earning power of labor and capital 69
Unfair competition 69
Silver situation 70
Income tax principle 70
Agencies of production 70
Making democracy safe 71
Public land claimant 72
Blot on nation's honor 72
Capitalizing the war 73
Increasing governmental agencies 73
Excess profits law 74
Profiteering 74
Control of minerals 74
Reed on coal famine 76
The great issue 117
A business suggestion 118
Breeders of class hatred 118
Oil shale resources of the west 119
Labor's weapon of defense 120
The silver situation 120
Embargoes and industrial efficiency 121
The Ferris bill 121
Shrewd game of labor politics 122
Oil development 122
Mineral control bill 123
Foreign trade development 165
Export trade law 165
War minerals bill 167
Public ownership of coal mines 168
Arbitration 169
John D. Ryan 169
Mineral land leasing bill 169
Increased service 170
Railroad coal 170
Post-war industrial problems 171
Jennings on gold 172
Oil production 173
Price of copper 199
Importance and responsibilities of labor 200
Conscription of labor and capital 201
Progress in war work 201
Wasting transportation 202
Value based on change of form or place 203
New revenue bill 203
Butte and Superior flotation case 204
Foreign trade after the war 204
Service to mining 205
Burdens of war 205
Installment payment of war excess profis tax 206
Patriotism and holidays 206
Federal investigation of mining methods 207
Gold mining and excess profits 207
Punishment for Germany 239
McAdoo on gold production 240
After war competition 240
Export trade 241
Freight rates and gold mining 242
Crisis in gold mining 242
Revenue legislation 244
Gold situation 287
Financial ability of the United States 288
War minerals bill 288

Price fixing 288
Revenue legislation 289
Importation of gold 290
Arbitration of labor disputes 291
Mining a wasting industry 292
Public control of means of communication 292
Murder of Romanoff 292
Announcement 329
Draft law and the mines 330
Mining and metallurgical reserve 331
Organization is salvation 332
Coal situation 333
Who is to blame? 334
Why not find the reason? 335
The zinc profiteer 335
New revenue bill 365
Gold mining as a business 367
Immediate aid necessary 368
Individualism vs. Unionism 369
Labor shortage 370
Coal absorbed 371
Bankers urge aid to gold mining 372
Around a widening circle 407
Cooperation vs. Competition 407
Gold will come back 409
War revenue legislation 409
Gold production 412
War Minerals Act 412, 450
Coal's isolation 416
Our twenty-first anniversary 441
Efficiency and wages 441
The gold situation 442
Stand by the constitution 442
Idealistic imperialism 443
Wyoming oil situation 444
Labor's ultimatum 446
Wages and prices 447
Future of gold mining 447
Cure for coal troubles 448
Passing the buck 448
The price problem 450

METAL, ETC.

A

Alabama graphite 234
Alaska chapter 237, 363
Alaska's mineral output 34
Aluminum prices 148, 233, 355
American Metal Co. 248
Antimony 131
Appropriation reduced 174
Arsenic 131

B

Bismuth 132
Blue sky ordinance 193
Bonner, J. B. (with cut) 138
Bonus for gold 294, 306
Brass mills speed up 347
Bromine stocks low 95, 132
Bureau of Mines appropriation 107

C

California production 56
Callbreath, J. F., testifies 136, 212
Chromite 132, 281, 440
Chromite imports 161
Clausen on gold 468
Coke prices 80
Colorado Metal Mining Association 44
Colorado's mineral output 22
Concentrates imports 303
Conklin, A. B. 234
Copper during reconstruction 452
Copper importations 428
Copper imports stopped 261
Copper in Arizona 87
Copper price 31, 280, 343, 469
Copper production 9
Copper profits 247
Corundum 132

D

Day, Harry L., testifies 131
Denver convention 44
Denver hearing 235
Douglas on copper 452

E

Electrical standardization 303
Experiment station superintendents 227
Exports iron articles 427

F

Fertilizer ingredients 86

G

Gold conference 346
Gold exports 301
Gold's future 447
Gold industry 186
Gold mine priority 363
Gold producer 491
Gold production 294, 306, 468
Gold report 427
Gold restrictions 452
Gold situation 340, 341, 442
Grade A zinc price 359
Graphite 132
Graphite importations 154
Gypsum imports stopped 261
Gulf sulphur deposits 81

H

Hamilton, Fletcher 233
Herculaneum wage increase 349
Homestake Mine production 19

I

Idaho's mineral output 24
Imports reduced 124
Inyo county map 233
Iridium 132
Iron ore imports 485
Iron ore price 273, 391
Iron ore production 57

J

Jennings, H., testifies 252
Joint Board on Minerals 92

K

Kelley, C. F., testimony 209

L

Labor's influence on copper ... 31
Labor shortage ... 31
Lead production ... 13

M

Magnesite ... 132
Magnesite imports ... 328
Manganese ... 132
Manganese imports ... 313
Manganese prices ... 217
Manning, Van H., testifies ... 131
Mediation commission's report ... 79
Mercury ... 132
Mercury price ... 177
Metal hearings ... 235
Metallurgical Board ... 337
Mexican export taxes ... 179
Mexico's mineral production ... 96
Mica ... 132
Mineral control bill ... 125
Mineral director ... 62, 92, 209
Mineral imports ... 182
Mineral imports committee ... 134
Minerals administration bill ... 174
Minerals after the war ... 475
Minerals separation ... 479
Mining Congress expands ... 44
Mining timber bill ... 102
Molybdenum ... 133
Monazite imports cut ... 272
Montana's mineral output ... 15
Myer, Eugene, Jr. (cut) ... 84

N

Nevada's mineral output ... 18
Nickel profits ... 247
Nitrate purchase ... 17
Non-ferrous director ... 83
Northwest mining convention ... 162
Norway to get metals ... 53

O

Oregon's mineral output ... 94
Osmium ... 133

P

Pett, Imer, elected ... 225
Pittman bill passes ... 178
Platinum ... 133, 280
Platinum commandeered ... 142
Platinum exports ... 496
Platinum licensing ... 375
Platinum regulations ... 375, 464
Pooling to be extended ... 404
Potash ... 133
Potash permits ... 91
Potash recovery ... 354
Price fixing of minerals ... 174
Price of quicksilver ... 177
Pyrite ... 133

Q

Quicksilver price ... 177, 496

R

Research needed ... 111

S

Salt Lake City ordinance ... 193
San Francisco hearing ... 235
Scudder on gold ... 491
Sheet zinc price ... 351
Silver bill passes ... 178
Silver, stabilization of ... 178
Smith, George Otis, testimony ... 125, 210
Southern pyrite association ... 310
Steel corporation loan ... 328
Steel prices ... 148
Steel priority ... 282
Stone, on uses for zinc ... 458
Sulphur ... 133
Sulphur commandeered ... 328
Sulphur profits ... 247
Sulphur reserve ... 357

T

Thompson, A. S., testifies ... 250, 387
Tin ... 133, 285
Tin conservation ... 389
Tin imports ... 91
Tin licensing ... 388
Tin pool ... 397
Tolovana district ... 43
Tungsten ... 133

U

Uranium ... 133
Utah chapter elects ... 225
Utah's mineral output ... 16

V

Vanadium ... 133

W

War minerals ... 167, 174, 209, 259, 313, 337, 373, 403, 422, 450, 460
Warren district's output ... 78
Washington's mineral output ... 20
West to cooperate ... 44
Wyoming chapter ... 103

Y

Yeatman selected ... 78

Z

Zinc, uses of ... 458
Zinc prices ... 83, 218, 226, 351, 359
Zinc profits ... 247
Zinc production ... 10
Zinc statistics ... 78

COAL

A

Alabama labor trouble ... 91
Alabama prices ... 344
Alaskan coal output ... 84
Alaskan leasing ... 54
Anthracite distribution ... 143, 304, 222
Anthracite for Canada ... 221
Anthracite for northwest ... 302
Anthracite output ... 158

Anthracite prices 434
Anthracite prices raised 485
Anthracite production 469, 193
Anthracite shipments 232
Anthracite shortage 160
Anthracite wage scale 493
Anthracite wages 421, 429
Appeals to operators 356
Arkansas prices 153
Assistant fuel administrator 236
Assistants appointed 138
Automobile industries' fuel 271

B

Bituminous production 232, 358
Blauvelt, W. S. (cut) 91, 142
Bonuses 363
Brewers cut output 143
Brydon's territory 99
Bunker coal 105
Bunker prices 66
Bunker regulations 309
Bunker situation 48
Bureau of labor 318
Bureau of prices 431
By-products 488

C

Calloway, A. W., appointed 110, 214
Canadian shipments 159
Car shortage 86
Car supply 82
Cardinal Gibbons letter 23
Charcoal price 326
Clay products restricted 183
Clean coal 156, 246, 452
Clearfield corporation 398
Clubs restricted 311
Coal distribution 43, 47
Coal estimates 307
Coal for tenders 359
Coal hearing 50
Coal in transit 96
Coal mines favored 343
Coal products 94
Coal shortage feared 182
Coalless days defended 59
Coke operators praised 236
Coke prices 179, 311, 326, 393
Coke production 422
Coke representative 159
Collins on gold 306
Colorado prices 154, 233
Commission named 440
Complaints against operators 94
Connellsville production 340
Conservation 184
Contingent fee permitted 345
Contract limit 326
Contracts stand 345
Cure for coal troubles 448
Cushing, Geo. H. (special article) 385
Cushing on by-products 488
Cushing on fuel administering 417

D

Dealers required to cooperate 9
December production 64
Detroit fuel 358
Dirty coal 160
Distributors' licenses 421
District representative 64, 179
Domestic conservation 265
Domestic consumers 30
Draft in mining regions 298

E

Early buying 158, 182, 193
Electrical equipment 185
Embargo raised 106
Embargo revoked 82
Emergency orders 107
Equivalents for coal 422
Estimates expand 350

F

Fatalities increase 112
Fixed price contracts 298
Frantz, J. H. 270
Fuel Administration 468
Fuel Administration not to move 195
Fuel conservation 55
Fuel for yachts 225
Fuelless day order 112

G

Garfield defends order 97
Garfield's summary 423
Garnsey appointed 236
Gas coal 274
Gas masks 281
Georgia prices 195
Government requirements 304
Greenhouse order 172
Groverman, W. H. 159

H

Hays, Frank J. 322
Hazard of coal mining 364
"Heroes of pick" 317
High production 238
High records 322
Hoarding 52
Honnold, F. C. 157
Hope, W. E. 295

I

Idaho administrator 393
Illinois prices 144, 225
Illinois production 437
Increase explained 43
Increased storage allowed 420
Increasing production 265
Indiana coal 495
Indiana prices 229
Indiana record 353
Individual responsibility 392
Industrial furnaces 325
Iowa prices 195

J

January production 105
Jobbers licensed 155
Jobbers' margins 80, 101
Jobbers profit 12
Jones, Senator, on fuel question 139

K

Kentucky prices, 195, 226, 315, 342
Knott, H. W., 261
Koepler, W. E. E. (cut), 195

L

Labor saving devices, 399
Labor situation, 298, 387
Lamp substitution, 336
Lands open to entry, 21
Lands restored, 114
License suspended, 389
Lightless nights, 179, 266, 270, 313
Lightless nights ordered, 23
Limits contracting, 157
Loading, 465
Lodge on fuel policy, 77

M

Manning on coal waste, 65
Map directories, 144
March anthracite production, 193
Means, C. H., 180
Michigan gets more coal, 82
Michigan representative, 138
Middle west pooling, 23
Mine fuel, 261
Miners' banquet, 439
Mines not slowed down, 48
Miners' service flag, 439
Miners work Sundays, 421
Mixing coal, 107
Modified mine run, 315
Montana administrator, 277
Montana fuel, 101
Montana prices, 154, 221
Morrow, J. D. A. (cut), 43
Morrow, J. D. A., speech, 215
Moriarty given wide power, 8
Must increase production, 226

N

National Coal Assn. meeting, 214
Neale, J. B., address, 96, 271, 438
New England allotment, 484
New England coal, 95, 437
New England coke, 227
New England situation, 55
New Hampshire administrator, 339
New Mexico prices, 142
New Mines, 216, 358
New York administrator, 340
Non essentials, 228
Non-essential industries, 30
Noyes, P. B., speech, 228, 394
North Dakota prices, 229
Northwestern prices, 272
Northwestern shipments, 20

O

Ohio prices, 316
Oklahoma coke prices, 222
Oklahoma prices, 153
Order coal early, 265
Order revoked, 224
Output September 21, 378
Overtime, 52, 82

P

Patriotism among miners, 301
Peale, Rembrandt, 318
Penna. Coal & Coke Corp., 373
Pennsylvania prices, 144
Pennsylvania records, 324
Pershing on coal, 436
Person, C. E., 433
Powder dispute, 15
Power-plant fuel, 222
Power-plant savings, 275, 347
Power waste, 46
President's proclamation, 356
Preston Co. prices, 100
Price allowances, 399
Price complaints, 99
Price reduced, 219
Priority, 275
Production, 495
Production campaign, 271, 305
Production costs, 309
Production committee, 322
Production figures, 268, 320, 422, 427, 434, 436
Production in 1917, 29
Production in 1918, 34
Productions managers, 355
Production stimulation, 361
Prosecution begin, 141
Prosecution ordered, 261
Public ownership, 168

Q

Quality of coal, 267
Questionnaires, 276

R

Railroad coal, 170
Railroad fuel, 114
Records broken, 304, 321, 356
Reed on fuel policy, 108
Retail provisions, 112
Retail regulations, 159
Retired miners work, 324
Rhode Island administrator, 226
Rocky Ridge dispute, 55

S

Safety work, 161
Screenings regulations, 312
Screenings situation, 359
Senate investigation, 494
Shovels tagged, 89
Skip stop savings, 421, 440
Smokeless coal for Chicago, 12
Smokeless conference, 319
Smokeless operators organize, 195
Smokeless shipments, 64, 323
Snead, L. A., 112, 261
Somerset field enlarged, 159
South Carolina Administrator, 427
Southwest Virginia, 324
State administrators, 54
State administrators meet, 95
Storage, 493
Storage regulations, 348, 402

T

Tag-your-shovel day 61
Taylor, Sam'l A. (cut) 272
Tennessee prices 61, 195, 276
Texas fuel 101
Texas prices 144
Tidewater coal 250
Track committee 477
Tuckahoe's record 257
Tug River prices 95

U

Utah coal prices 15
Utah prices 154

V

Virginia coke prices 225
Virginia prices 94, 193, 195

W

Wage agreement 42
Wage probe 399
Washington prices 153
Waterways 61
Wayne county prices 160
Western coal exported 342
Westmoreland Coal Co. 34
Westmoreland County 437
West Virginia car supply 102
West Virginia Chapter 49
West Virginia prices 144
Wheelwright, J. F., elected 214
White, C. P., appointed 226
White, John P. 318
Wiggin, A. H., resigns 233
Window glass output curtailed 90
Wood as fuel 317
Wood, G. R., report 185
Wyoming prices 154, 194

Y

Yacht fuel 285

Z

Zoning system 145, 460
Zone licenses 161

OIL

A

Allies' oil purchases 262
All-steel tank 194
Arnold on reconstruction 476

B

Bartlesville station (cut) 312
British thermal unit 262
B. T. U. standard 487

C

Cementing wells 395
Consumption increases 399
Crude oil price 283
Crude oil production 19
Crude oil requirements 378
Crude petroleum price 340
Crude price 225

F

Fuel oil regulations 156

G

Gas waste 478
Gasoline conservation, 276, 353, 399, 452
Gasoline, demand for 460
Gasoline for overseas 302
Gasoline from gas 383
Gasoline limitations 320
Gasoline, overseas 467
Gasoline price 324
Gasoline saving 374
Gasolineless Sundays 439

H

Hayes, Judge W. S., testifies 254

I

Industry highly organized 296

K

Kerosene shortage 393

L

Licensing 397

N

Natural gas 439

O

O'Donnell to aid Requa 90
Oil administrator 58
Oil after the war 476
Oil Co. profits 248
Oil decree postponed 267
Oil distribution 79
Oil division's personnel 90
Oil for roads 229
Oil industry in war service 149
Oil land leasing bill 31
Oil Land Leasing bill passes 220
Oil men meet 76
Oil production 173
Oil refineries, new 342
Oil section—Colorado Chapter 48
Oil tanks exported 347
Oil trade abuses 314
Oil well supplies 257

P

Petroleum experts confer 351
Petroleum production 14, 155, 164, 374
Petroleum profits 248
Petroleum standardization 303
Petroleum waste 398
Pleads for more crude oil 419
Price of oil 29

R

Requa, M. L. 58
Requa, M. L., letter 225
Requa speaks 149
Requa, M. L., Tulsa speech 296
Road use 466

S

Shea, J. J., testifies 253, 390
Steel for oil industry 257
Storage 194
Stove making stopped 431
Supply men meet 155

T

Tank car situation 363
Taxation 218
Tepetate wells 229

U

Use of gas 60
Use of natural gas 433
U. S. placer mining laws 25

W

Waste of fuel oil 432
Wyoming oil men meet 56
Wyoming oil situation 444

MISCELLANEOUS

A

Acid ruling 434
Alpine, J. R. 270
Arizona Chapter 490

B

Baruch, Bernard 81, 270, 463
Bethlehem steel case 313
Boyle, Emmett D. 19, 346
Brookings, Robt. S. (cut) 467
Brunton, D. W. 230, 278, 399
Burns, J. T., speech 231
Building restriction 400
Bureau of Mines Service 263
Byrd, H F. 261

C

Callbreath, J. F., testimony 379
Camp Kendrick 386
Cement output 48
Central Department, A. M. C. 223
Central Labor Agency 264
Central recruiting of labor 315
Chase, M. F. (cut) 460
Chrome ore imports 479
Clay products 183
Coleman, Chas. P. 196
Colver on reconstruction 483
Commend editorials 295
Community labor boards 316
Contracts 478, 481
Cook, D. W. 309
Cooperation 476
Cooperative competition 461
Cost plus contracts 298
Crowell, Benedict (cut) 262
Crowell on contracts 478
Current Federal legislation 32
Cutler on reconstruction 482

D

DeWolf, F. W., (cut) 181
Doheny (cut) 455
Douglas, Dr. Jas., dies 256
Douglas, Walter (cut) 265
Dye, Alexander V. (cut) 325
Dyestuffs industry 396

E

Eight-hour day ruling 432
Engineering education 360
Engineer training camp 285
Engineers' banquet 278
Excess profits 42, 231
Experiment station superintendents 284
Experts licensed 76
Explosives regulations 464
Export trade law 165

F

Federal legislation 113, 192, 224, 279
Federal Trade Com. Report 247
Federal trade costs 309
Foreign trade 165
Freight rates advanced 276
Frankfurter, Felix 236
Frankfurter on unemployment 457

G

Gas experiments 319
General Electric case 430
Goethals on contracts 481
Government operation of railroads 12
Guyer, Helen E. (cut) 496

H

Hall, Clarence 362
Hammond, John Hays (cut) 265
Harvester suit 313
Henderson, C. B. 61, 337
Hess honored 21
Holmes (cut) 454
Hoover, H. C. (cut) 258
Howard 455

I

Imports licensed 76
Income tax deductions 280
Industrial accidents 404
Industrial plants 161
International mining law 477
Inventions Board 230

J

Jennings, Hennan, article by 186

K

Kahn on reconstruction 471
Senator Kearns dies 428
Keith, David, dies 181

L

Leasing bill 169
Labor board 183
Labor importation 272
Labor matters, 441, 446, 447, 457, 462, 464, 483, 486, 495
Labor policy 308
Labor restrictions 317
Labor survey 462

Lauck, W. Jett.................. 230
Leasing bill...................... 435
Legislation....................... 327
Legislation pending................ 351
Leiter, Joseph (cut)................ 272
Leith, C. K........................ 246
Lincoln Trust Bldg. (cut)........... 223
Lord on mine labor................ 486
Louisvile office, A. M. C........... 223

M

MacDowell, Chas H. (cut).......... 477
McAdoo on safety first............. 397
Manning on research............... 465
Mein, Wm. W. (cut) ....Front cover
Mein on potash.................... 466
Mexican labor..................... 321
Meyer, Eugene, Jr. (cut)........... 255
Mining Congress commended........ 100
Mining Congress, support urged...... 105
Minimum wage.................... 323
Mooney, Capt. J. D. (cut).......... 302
Morris, H. C. (cut)................ 304
Moyle, James H. (sketch)........... 84
Mudd, Seeley (cut)................ 258
Munitions directors................ 343
Munitions patent board............ 433
Mussel Shoals plant................ 360

N

National war labor board........183, 207
Neale on labor.................... 464
New acid plants.................... 421
New industries banned............. 274
Niagara Falls plants................ 31
Non-essential industries............. 89

O

Ordnance base.................... 160
Ownership statement............... 181

P

Passenger service.................. 56
Peabody, F. S. (cut)............... 262
Personals 34, 115, 163, 196,
238, 328, 364, 404, 440, 496
Picric acid plants.................. 235
Plant commandeered............... 390
Postal statement.................. 181
Potash.......................... 466
Powder plants..................... 94
Preference list.................... 184
President scores strikers............ 384
Prices........................... 450
Priority for mine supplies........... 328
Priority plan...................... 184
Priority regulations................ 299
Prison labor...................... 346
Profiteering...................... 247

R

Railroads under U. S. operation..... 12
Ransome, F. L..................... 192
Recruiting of labor................ 266
Revenue bill............ 338, 365, 379
Requirements division.............. 180
Revenue legislation.......... 250, 453
Riordan, D. M.................... 279
Roper on competition.............. 461

S

Safety conference.................. 231
Safety in steel industry............. 470
Sargent, Dr. G. W................. 337
Shafroth, Senator (cut)............. 218
Shipping......................... 456
Smith, Geo. Otis................... 310
Smith, Geo. Otis, on reconstruction.. 475
Smith and Wesson................. 390
Smith & Wesson award............. 352
Smoot, Senator.................... 338
Spain's agreement................. 154
Spurr, J. E................. 266, 269
Spurr on post-war work............. 473
Standardization of wages........... 271
Statement of ownership............. 381
Steel men meet.................... 456
Sundry Civil Bill................... 261

T

Taxation hearings.................. 250
Tax regulations.................... 78
Thomson, D. C. (cut).............. 343
Thompson on revenue.............. 453

U

Unemployment.................... 457
Utah chapter..................... 473

W

Wagenen, Thos. F. (book).......... 476
Walcott, C. D. (cut)............... 270
War industries board reorganizes.... 180
War Labor Board, 207, 218, 221, 230, 236
War Trade Board's work............ 85
Ways and Means hearings........... 250
Wells on cooperation.............. 476
White, J. P................... 221, 467
Williams on reconstruction......... 480
Williams, Henry S., dies............ 325
Wood as fuel...................... 60

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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

A HAPPY NEW YEAR

The Mining Congress Journal extends to its readers and friends its best wishes for a happy and prosperous new year.

It desires also to voice its appreciation of the splendid cooperation of its readers and the machinery and supply people who have made its success possible.

The Journal has become a powerful factor in the work of the organization in creating that public opinion which is absolutely essential to the best development of the mining industry. The larger The Journal's income, the greater its influence and usefulness.

The Journal is the direct result of cooperation. Our friends have shown what can be done. We thank each and all for their hearty cooperation, their interest and loyalty, and we pledge in return our very best effort to secure for their industry the highest possible development.

DOLLAR SILVER

In order to conserve the gold supply of the United States by utilizing silver as much as possible in the settlement of adverse trade balances with Oriental countries, the Federal Reserve Board has given careful consideration to various aspects of the silver question. The earliest estimates indicate that the silver output of the world for 1917 was 156,000,000 ounces, which is much below the production of recent years. To meet the requirements of the United States in the settlement of its trade balances, it seems necessary to make use of those supplies in the United States Treasury which are held as security for the Federal silver certificates.

Legislation is required to make this silver available. The retirement of these silver certificates calls for the issuance of Federal reserve bank notes or other form of paper money if contraction is to be avoided. Recognizing this as an expedient to take care of the extraordinary demands of the war, the Government will restore the Federal silver from the current production as it is able to do so.

Facts were given to the Federal Reserve Board by a Western delegation of mining men, headed by Gov. Emmet D. Boyle, of Nevada, which they believe justify a price of $1 an ounce for all silver offered.

In speaking of the problem here discussed, Governor Boyle said:

> There will probably be legislation proposed providing for the withdrawal by the Government from the Treasury of such silver as it needs for immediate use and for the fixing of a price of $1 per ounce on all silver that may be tendered for sale to the United States mints and assay offices, from which the Government can take care of the needs of the Allies, of the arts, its own needs for subsidiary coinage, and to restore to the Treasury sufficient bullion to permit the reissue of the silver certificates temporarily withdrawn from circulation.

SENATOR NEWLANDS

The death of Senator Francis G. Newlands, of Nevada, is a distinct loss to the nation. Senator Newlands was a man of vision, of constructive ideas, and possessed with a patience which enabled him to work continuously, year after year, for the accomplishment of some constructive purpose which required continuous agitation and discussion in order that the public mind could be brought to a proper appreciation of the wisdom of his view.

WAR EXCESS PROFITS TAX

December was a busy month at the headquarters of the American Mining Congress. Two important conferences were held, and many prominent mining men were in Washington. The two subjects considered were the war excess profits tax and the stabilization of the price of silver. The former of these was under consideration for days, and is still occupying the attention of a committee of fourteen, representing the various branches of the mining, oil, and gas industries.

The committee of fourteen consists of the following:

Representing oil and gas—John J. Shea, Oklahoma, and T. A. Dines, Denver. Coal—A. G. Dickson, Pennsylvania, and Herbert Pope, Chicago. Western lead—Ravenel Macbeth, Idaho, and A. G. Mackenzie, Utah. Gold and silver—Gov. Emmet D. Boyle, Nevada, and Albert Burch, California. Lead and zinc—A. Scott Thompson, Oklahoma, and Victor Rakowsky, Boston. Copper—Paul Armitage, New York City, and Archibald Douglas, Arizona.

The visiting mining men also had hearings with members of Congress and the War Tax Advisory Board of the Revenue Commissioner. Among the points suggested to the War Tax Advisory Committee are the following:

1. That mineral, oil, and gas leases are tangible property, and should be so construed.

2. That individuals engaged in prospecting for oil or minerals should be considered as "engaged in business having no invested capital" or "merely nominal capital."

3. That surplus earned during the year should be construed as invested capital from the time at which such surplus is actually employed in the business.

4. That under Section 210 of the act the commissioner has power to determine the proportion of income of an oil or mining business which shall be considered as excess profits, without requiring each taxpayer to determine his or its invested capital.

5. That the proceeds from the sale by a corporation of its own capital stock to raise money for development and operation expenses should not be held as the income.

The committee of fourteen proposed the following as an amendment to the excess profits law:

> Be it enacted by the Senate and the House of Representatives of the United States of America, in Congress assembled, that Section 207 of Title 2 of the act entitled "An act to provide the revenue to defray war expenses and for other purposes," approved October 3, 1917, be amended by the addition of a new subdivision "C" to Section 207, reading as follows:
>
> "That in the case of mines, oil, and gas wells the invested capital, at the option of the taxpayer, shall be (1) the average pre-war net income capitalized at 8 per cent, and (2) paid in or earned surplus and undivided profits used or employed in the business since the pre-war period, exclusive of undivided profits earned during the taxable year. Provided, That in the case of mines, oil and gas wells having no pre-war net income or acquired since the pre-war period, the 'invested capital,' at the option of the taxpayer, shall be (1) the net income for the year 1917 capitalized at 12 per cent, and (2) paid-in or earned surplus and undivided profits used or employed in the business subsequent to the year 1917, exclusive of undivided profits earned during the taxable year."

This proposed amendment has been submitted to various interests for criticism and suggestion, and will be taken up by the committee on January 7 for further discussion and final determination as to the exact form of amendment which the committee will ask Congress to consider.

TREASURY STOCK

Organizers of corporations whose "full-paid" treasury stock is sold for the purpose of raising capital will be relieved by a recent ruling of the Revenue Commissioner. The commissioner had ruled that income from sales of "full-paid" treasury stock is income within the scope of the income tax law.

This caused alarm among representatives of corporations so affected, but it is now understood that Treasury officials agree that only so much as the amount by which such receipts exceed the value of the treasury stock at the time it was donated to the corporation is taxable as income.

1917 AND THE BITUMINOUS COAL INDUSTRY

The year which has just come to a close was an extremely eventful year for the mining industry. The first half of the year was an era of unprecedentedly high prices for practically all of the mineral elements. A good part of 1916, and five years prior thereto, bituminous coal had been sold below the actual cost of production. The writer estimates that during that six-year period the actual loss to bituminous coal operators was approximately a quarter of a billion dollars. During this period the production and the demand for coal had increased approximately 10 per cent yearly, while the productive capacity during the greater part of this time increased more rapidly than the demand. A serious situation confronted the industry, and this manifested itself in a gradual decrease in the facilities for production.

During these same years, the transportation agencies of the country gradually allowed their equipment to deteriorate so that the increased demand for transportation occasioned by war conditions placed so great a burden upon the railroad companies that the increased demand for coal could not be met. There was a falling off in productive capacity, and a falling off in the power to deliver coal from the mines to the consumer. When this shortage in supply became apparent it caused an enormous increase in the price of the coal which was not sold under contract, otherwise known as "free" coal. Approximately 90 per cent of the coal supply was under contract at very low prices, in many cases at less than the usual cost of production, and much less than the cost when the increased expense of mining occasioned by war conditions had to be met. During the first half of the year those companies having any considerable amount of "free" coal made extravagant profits, while those companies with their coal largely under contract, notwithstanding the high "market" prices for coal, were losing in a similar ratio. Gradually as contracts expired at the lower prices, contracts were made at largely increased prices.

The Government needed coal for its Navy. Its contract was expiring. It had been buying coal in the Pocahontas field at a few cents over $1 per ton; the market at that time was taking all of the Pocahontas production at better than $6 per ton. The operators in the Pocahontas coal field were under indictment for violation of the Sherman law, and their trial was rapidly approaching in the Federal courts.

Mr. Francis S. Peabody, who had been made chairman of the Coal Committee of the Council of National Defense, accepted the compromise offer of the Pocahontas operators to furnish the Navy with coal at $2.85 per ton, less than one-half the then market price. The Secretary of the Navy, with his usual sagacity, refused this offer. Mr. Peabody's committee called the bituminous coal operators together and an agreement was reached by which $3 was to become the maximum price for bituminous coal—a price in excess of the cost of production at some points, and high enough to induce production at all points in the central productive fields.

It was believed that this price would so stimulate production in the great competitive field that the price would be lowered to a point slightly above the cost of production. The President of the United States apparently believing otherwise fixed a maximum price of $2 per ton in the fields which produced the greater part of the country's coal. This price was below the cost of production in many fields, and notwithstanding the fact that many operators continued to operate their mines at a loss for patriotic reasons, others less patriotic and those whose financial conditions made impossible a continuation of operation closed their mines, and instead of an increase of production sufficient to meet the increased demand there was an actual falling off in production of bituminous coal.

During this period in all parts of the country there was a demand on the part of the workers for increased compensation, and coal production was stopped by strikes more frequently than at any time in our history. The prices fixed by the President were increased by the Fuel Administration, but not until several weeks of delay had been occasioned in the effort to present to Dr. Garfield figures upon which he might base intelligent conclusions.

In the midst of all these difficulties the war excess profits tax provision of the income tax bill was passed by Congress, so worded as to put an undue and unjust burden upon those industries which exhaust themselves by production, and falling with particular weight upon those branches of the mining industry which made no profits during the pre-war period.

Notwithstanding the difficulties of previous years, the bituminous operators of the country will face the "Happy New Year" with more relish than usual because of the fact that 1917 and its tribulations have passed into history.

MINERAL LEASING BILL PASSES SENATE

Mineral land leasing on the public domain has occupied the attention of the United States Senate since Congress reassembled. The Walsh bill passed the Senate by a vote of 37 to 32. This bill represents a compromise between the two extremes of that body. The particular attention of the Senators was directed to the provisions dealing with the leasing of oil lands, and this matter has held the attention of operators in the public land States.

It is by no means certain that the bill as it stands will become a law, since it is likely to meet with opposition in the House of Representatives. The Ferris bill on the same subject, which has twice passed the House, has been reintroduced and it may prevail in the House over the Walsh bill.

On the last day of the consideration of the mineral land leasing bill, the Senate adopted a number of vital changes. Additional discretion was given to the Secretary of the Interior. The more important changes are as follows:

Section 17 was changed to provide that the rights of previous claimants should be effective from and after January 1, 1918, instead of August 1, 1917. Where the previous language in Section 17 speaks of "diligent prosecution of work," the word "diligent" has been removed and the phrase "without unreasonable delay" inserted. This scarcely affects the significance of the amendment but it changes phraseology which has already been passed upon by the United States Circuit Court of Appeals at St. Louis in the well known Grass Creek Case.

In the issuance of permits to prospect wild cat territory the Secretary of the Interior has discretion to determine whether the permit is on a previously known oil structure. The holder of a prospecting permit shall have the preference right to leases to cover territory upon which his permit is located.

Holders of oil lands in Alaska prior to the withdrawal order who have expended not less than $500 are entitled to the benefits to Section 16. This figure is reduced from $1,000.

A significant amendment is that which provides that no further withdrawals of mineral lands shall be made except by Act of Congress.

The Senate adopted an amendment to provide that a number of patentees or lessees may combine to construct pipe lines as a common carrier for joint service under the approval of the Secretary of the Interior. This does away with one of the important objections which were raised to the bill.

COMBINATIONS UNDER GOVERNMENT SUPERVISION

Only a short time before Senator Newland's death, the writer was privileged to sit at the table with him at a dinner given especially for the discussion of methods through which the Government might avail itself of sufficient silver bullion to care for its obligations to creditor nations without lifting the embargo upon gold exportation. Senator Newlands said to the writer: "Do you remember when you came before our committee urging legislation which would permit business combinations under Government supervision? Recent events have demonstrated the wisdom of your position and the necessity of permitting more effective cooperation in business affairs." The writer believed, and still believes, that business units should be permitted to pool their forces for higher efficiency and that a better conservation and utilization of resources can be effected through such coordination. Such combinations could not be safely permitted except under Government supervision. With proper constructive power, the Federal Trade Commission could have provided for a cooperation which might have prevented the need for Government interference with the operation of the established business agencies which have heretofore fully met public requirements.

THE GOVERNMENT AND ITS RAILROADS

The taking over of the management of the railroads by the Government appears to have been a necessary step under the existing conditions. The writer believes these conditions to have been abnormal and unnecesasry. Whether this belief is well founded or not, there can be no question that the congestion of traffic upon the roads of the country and the failure to transport fuel to points where its use is an absolute necessity for industrial and domestic purposes required a perfect coordination of those forces through which the prime essential of all progress, transportation, should be made available to meet existing needs. For some years past railroad betterments have not kept pace with the increasing demand for transportation. It is claimed that the failure to keep pace with industrial progress was brought about by too much Government supervision, by the making of rules which prevented the railroad business from being profitable, resulting in a depression of stocks and the inability of the roads to raise the money necessary to keep their equipment at maximum efficiency. The Mining Congress Journal regrets the conditions which have made the Government control a necessity, but it believes that such management is absolutely necessary at this time, and it hopes that through a more complete coordination of forces new impetus may be given to industrial enterprises and that we may be better prepared to meet the great war requirements of the day.

CAPITAL AND PRODUCTION

No theories as to possible improvements in society can change the fact that private capital furnishes the mechanism of wealth production. The yield of mining and industrial plants is a response to the incentive of private capital to pursue its normal functions. When the Government needs minerals it must rely upon privately owned mines and oil wells to provide for its requirements. One may say that the Government can confiscate the mines or commandeer them for temporary purposes, but the one who says this must first propose the means whereby a government engaged in a great war can successfully devote itself to industrial as well as military affairs. It is task enough to man the battlefields of Europe without being called upon to man the industries. The incentives of private capital *must be trusted.*

The decision of the President to assume the direction of the railways is hardly to be accepted as a case of Government necessity, primarily. The necessity was rather upon the side of the railways, which have been unable to finance themselves up to the demands of traffic. This condition threw the burden of their management upon more powerful shoulders, namely, those of the whole people. The private control of the railways would have been better for the Government if the railway managements had been able to meet the requirements of the times.

Taking it for granted, therefore, that the private management of mines and other industrial plants is best for the Government, we need not look for any confiscation of such properties. On the contrary, we may expect the Government to use an excess of caution in preserving the activities of industry and encouraging its efficiency. Great burdens are bound to fall upon the patriotism of the owners of mining and industrial plants, as these naturally expect, but it is to be remembered that capital acts in masses, and it does not, in spite of popular impression, possess intelligence of force. It functions in a certain mechanical way, and it responds to discouragement without any perceptible intelligence of individual action. This may be better understood by making the comparision with labor. Individual laborers may act with perceptible intelligence, but labor in the mass, considered as a blind force, is a brutal phenomenon.

Accordingly, the officers of the Government upon whom falls the duty of overseeing industry during a national crisis must be constantly warned against oppression and revolution. Beyond a certain point, we shall have confiscation of capital, if it is possible for the burdens of war to become great enough, and this will be certain to react upon the Government itself. It is to be hoped that it will never be necessary to destroy the traditions of business in an effort to finance the war. The United States is rich enough to provide a huge income for military purposes simply from the normal annual increase. Let the fixing of the burden be equitable and without taint of revolution.

ESSENTIAL INDUSTRIES

The one hundred million people who remain at home must earn a living for themselves and also create a surplus from which the fighters at the front must be supplied with army necessities. To stop the manufacture of Christmas toys might liberate an infinitessimal part of the nation's productive capacity for use in some line of production apparently more necessary in the conduct of the war. It would, however, take from a calling in which certain tradesmen are efficient and supply other workshops with inefficient workmen. It might take from certain tradesmen the means through which they may accumulate such earnings as will enable them to pay taxes. Taxes must be levied against property: income taxes must come from income; the Government must not cripple those factors from which it expects to get its support. Would it be wise to destroy the Christmas spirit, which is in tune with the keenest loyalty and that spirit of self-sacrifice upon which this war is being waged? THE MINING CONGRESS JOURNAL does not believe that it is within the outlook of any man or set of men to draw accurate and definite lines of demarcation between the essential and the nonessential industries. It may be that business cannot now be conducted as usual, but it is true that the more nearly we can keep the industrial power of the nation in its accustomed channels and at its greatest efficiency, the more easy will it be to meet governmental requirements. To close up certain industries because thought to be nonessential will so disturb the body politic that it will fail to function properly at the more important points.

GOLD PRODUCTION AND THE WAR

A considerable agitation has been developed throughout the West because of a rumor that the Administration was about to declare the production of gold a nonessential industry; at least to declare that other industries were more essential and to divert the distribution of explosives to other channels. This rumor had no foundation in fact, but it does call attention to the importance of gold and the increasing importance as war expenditures require an expansion of currency. The governments of the world have recognized the importance of gold by the issuance of embargoes upon its exportation.

THE MINING CONGRESS JOURNAL has frequently called attention to the increasing burden upon gold production caused by the increasing costs of labor, machinery, and supplies. The value of gold is fixed; as production costs increase, gold producing profits decrease. The gold production of the world is rapidly decreasing. The circulating medium of the world, based upon gold values, is increasing with alarming rapidity. Gold production cannot possibly keep pace with the increased credits which it is required to support. It is no time to discourage the production of gold, unless we can adjust our business to a basis of depreciated currency. In 1864 one dollar in gold was worth $2.85 in currency; in 1873 one dollar in gold was worth $1.19 in currency; from 1860 until 1880 gold was at a premium. In other words, our currency was depreciated. This premium continually decreased until our gold reserves were in a proper ratio to the credit money of the nation. The United States has been fortunate enough to almost double its gold reserves during the past few years. Approximately speaking, we have increased our gold supply from one and three-quarter billions to three and one-half billions. This was the nation's net profit from the war while we were slackers. Now that we have taken our proper place in the ranks, we must hereafter bear our share of the burden. This means increasing expenditures, which must continually increase the burden of credits which gold must maintain.

This is no time to discourage the production of gold. It is a time in which every possible governmental agency looking to the stimulation of gold production should make its best effort.

We must realize the necessity of keeping a gold reserve in sufficient amount to support the continually increasing amount of currency which the enormous increase in business transactions make necessary. To interfere with gold production would be worse than folly.

PRICES AND PRODUCTION

Every day's experience adds to the justification of the course pursued by the Committee on Coal Production of the Council of National Defense, of which Mr. Francis S. Peabody, of Chicago, was chairman. Every day's experience brings increasing proof of the foolishness of those upon whose advice the Peabody program was destroyed and a price fixed for coal less than the cost of production at a considerable number of the mines of the country. The coal famine with which the country is now and has been suffering is the direct, the natural, and the almost inevitable result of the effort to make price more important than production. It is true that the price fixed by the Administration which the Fuel Administration was called upon to make effective was sufficient to leave a margin of profit to the producers of approximately 75 per cent of the coal of the country. It is equally true that the $2 price was not sufficient to enable the producers of the remaining 25 per cent to operate at a profit. The fuel needs of the country called for an increased annual production of not less than 50,000-000 tons. This increase could not be hoped for except as the result of a high price, the only inducement which ever justified increased development and production. The destruction of this incentive has induced confusion, want, and suffering, and the end is not yet.

OIL SHALE LOCATIONS

Interest in the oil-bearing shales of western Colorado and eastern Utah has caused some prospectors to inquire concerning the method of locating claims under the public land laws. While the matter is not wholly free from doubt and possible exceptions, it is probable that the placer law generally applies in such cases. The statute of 1897 says:

> Any person authorized to enter lands under the mining laws of the United States may enter and obtain patent to lands containing petroleum or other mineral oils, and chiefly valuable therefor, under the provisions of the laws relating to placer mineral claims.

The practice of locating oil lands as placers existed without question until 1896, when the Secretary of the Interior decided against it. Congress, therefore, in 1897, adopted the statute confirming the previous practice. Apparently there seems to be no doubt of the right of the locator of oil shale lands to claim patent under the placer law, but there are certain considerations which may alter the case.

Decisions of the courts in the matter of locating asphaltum are the nearest approach to any adjudication of the subject, although they are not complete. These hinge upon the accepted definitions of lodes and the reasonings of the courts concerning the geological structure of asphaltum deposits. In a classic case, entitled Webb vs. the American Asphaltum Company, it was the judgment of the Circuit Court of Appeals, Eighth District, that asphaltum, varying in its consistency from a liquid to .a semi-liquid condition, may be located as petroleum, but that when it assumes the solid form and is found in a vein or lode it cannot be located under the petroleum placer statute. If Congress had intended to include veins of asphaltum in place, the court held, it would have so stated in the act of 1897. Judge Sanborn wrote the decision.

Inasmuch as oil shales have not long been considered in the United States as a source of petroleum,. the courts have not had occasion to pass upon this question.

The chief element of doubt in the case of oil-bearing shale is whether the location is based upon the oil it contains or upon the shale. If the location contemplates the mining of the shale for its oil content, one may well reason that its solid form furnishes an analogy with the condition of solid asphalt in the shape of a vein or lode. Residual bodies of wax or asphalt deposited in fissures traversing a body of shale should, according to the asphalt case already cited, be held to take precedence over all placer rights. On the other hand, if the oil is regarded as a liquid content of the shale, and its recovery is known to be in liquid form, it falls within the purview of the 1897 statute.

PROMOTION OF EXPORT TRADE

What is familiarly known as the Webb bill, intended to promote export trade, passed the Senate December 12 with a few slight verbal amendments. This bill had already passed the House of Representatives, and a conference committee was appointed by the Senate, consisting of Senators Pomerene, Robinson and Cummins.

The Webb bill was discussed at the New York meeting of the members of the American Mining Congress, which has gone on record as favoring the adoption of this measure. It provides that the Sherman act shall not be construed to prohibit any association or combination formed for the sole purpose of engaging in export trade, provided that such association or combination does not operate to restrain the trade of any domestic competitor or enter into any agreement or understanding or conspiracy, the natural effect of which enhances or depresses prices within the United States.

The bill permits the acquisition by any corporation of any part of the stock or capital of any other corporation organized solely for the purpose of engaging in export trade, unless the effect of such ownership may be to restrain trade or lessen competition in the United States.

Combinations so engaged in export trade fall under the supervision of and must report to the Federal Trade Commission, and the commission may bring action to cause such combinations to change their methods upon showing that their conduct does not comply with the intent of the act.

MORIARTY GIVEN WIDE POWER BY THE FUEL ADMINISTRATOR

The railroad situation in the country with particular reference to coal transportation was the subject of a conference December 15, between United States Fuel Administrator Harry A. Garfield and A. W. Thompson, chairman of the Committee of operating managers of eastern railroads with headquarters in Pittsburgh.

One result of the presence in Washington of Chairman Thompson and of his recommendations was announcement of the appointment by the Fuel Administration of C. R. Moriarty of Cleveland as the Fuel Administration's representative to exercise such powers and authority as may be necessary to enable him to perform all of the duties of general director of the coal shippers terminal pool association.

The credentials given to Mr. Moriarty provide that he shall work under the direction of Federal Fuel Administrators Homer Johnson of Ohio, and W. K. Prudden of Michigan.

COPPER PRODUCTION INCREASES OVER 1916

Year Just Closed Saw an Output of Red Metal Valued at $510,000,000

The production of copper in 1917 was slightly less than in 1916, according to preliminary figures and estimates collected by B. S. Butler of the United States Geological Survey, Department of the Interior, from all plants that make blister copper from domestic ores or that produce refined copper. At an average price of about 27 cents a pound the output for 1917 has a value of $510,000,000, as against values of $175,000,000 for 1916 and $190,000,000 for 1913.

The figures showing the smelter production from domestic ores represent the actual output of most of the companies for 11 months and the estimated output for December. A few companies gave no figures for November but furnished estimates of the combined output of November and December. The production of blister and Lake copper from domestic ores was 1,890,000,000 pounds in 1917, against 1,928,000,000 pounds in 1916 and 1,224,000, pounds in 1913.

The output of refined copper (electrolytic, Lake, casting, and pig) from primary sources, domestic and foreign, for 1917, is estimated at 2 362,000,000 pounds, compared with 2 259,000,000 pounds for 1916 and 1,615,000,000 pounds for 1913.

FOREIGN TRADE AND DOMESTIC CONSUMPTION

According to the Bureau of Foreign and Domestic Commerce, the imports of unmanufactured copper of all forms for the first 10 months of 1917 amounted to 460,780,000 pounds, as against 397,594,000 pounds for the first 10 months of 1916. The imports for the year 1916 were 462,335,000 pounds.

The exports of pigs, ingots, bars, plates, sheets, rods, wire and like copper products for the first 10 months of 1917, as determined by the Bureau of Foreign and Domestic Commerce, amounted to 953,876,000 pounds; the exports for the first 10 months of 1916 were 655,473 000 pounds. Similar exports for the year 1916 were 784,006,000 pounds.

At the beginning of 1917 about 128,000,000 pounds of refined copper was in stock in the United States. By adding this quantity to the refinery output of the year it will be seen that the total available supply of refined copper, exclusive of secondary copper, was about 2,490,000,000 pounds. By subtracting from this quantity the exports for the first 10 months and the estimated exports for the last 2 months, and assuming no change in stocks, it will be seen that the supply available for domestic consumption in 1917 was materially less than the 1,430,000,000 pounds available in 1916.

The average monthly quoted prices of copper in 1916 and 1917 were almost exactly the same, 27.2 cents a pound. The average quoted price in 1916 was about 2.5 cents more than the actual average price received. The actual price received in 1917 was probably nearer the average quoted price.

RECORD BY STATES

Arizona produced 687,800,000 pounds, a slight decrease from the production in 1916, which was 694,800,000 pounds.

Montana produced 278,000,000 pounds, as against 352,000,000 pounds in 1916.

Michigan produced 275,000,000 pounds an increase over the 269,794,000 pounds produced in 1916.

Utah produced 215,000,000 pounds, as compared with 232,000,000 pounds in 1916.

Nevada produced 110,000,000 pounds, an increase over the 100,800,000 pounds produced in 1916.

Alaska, with a production of about 87,500,000 pounds, showed a large decrease from the previous year.

New Mexico increased its production to 104,500,000 pounds from 79,800,000 pounds in 1916.

The production of California was considerably above the 43,400,000 pounds produced in 1916.

The production in Tennessee, did not differ greatly from the production in 1916 which was 14,500,000 pounds.

Dealers Required to Cooperate

The present is not a time when coal dealers can run their business as they see fit and cooperation with the United States Fuel Administration will be required, Dr. Garfield announces. If coal dealers in any part of the United States refuse to cooperate with the Federal Fuel Administration steps will be taken to divert coal to dealers who will cooperate. This policy of the United States Fuel Administration was made known in a telegram to a firm of coal dealers in a Pennsylvania city.

The telegram to the coal dealers who had been reported as refusing to cooperate with the Fuel Administration was as follows:

"Administration is advised you refuse to cooperate with Federal Fuel Administrator. If this is the case administration will take steps to have all coal shipped to you diverted to other local dealers who are willing to cooperate with this administration in relieving whole situation. It is not a time when dealers can run their own business as they see fit and cooperation on part of dealers must be given if efforts of this administration are to be successful. Unless advice that you are willing to cooperate is given by four o'clock this afternoon we will arrange to have all coal now in transit diverted to other dealers in your city."

LESS ZINC MINED LAST YEAR THAN IN 1916

Total Output Estimated at 690,000 Tons as Compared with 702,610 Tons in 1916.

The zinc-mining and zinc-smelting industries started the year with every prospect of prosperity, although the price of spelter was below the average of the preceding year. During the last half of the year both the zinc smelters and the zinc miners were claiming that their operations were unprofitable because of the high general prices and the low price of spelter. In consequence a large part of the smelting capacity of the country was idle at the close of the year, and there was a notable curtailment of output during the last quarter.

According to the best information now available, the recoverable zinc content of ore mined in the United States in 1917 was about 690,000 short tons, compared with 702,610 tons in 1916 and 605,915 tons in 1915.

The Joplin district gained nearly 20,000 tons in output. This gain was made during the early part of the year, however, for the increasing cost of operating in the sheet-ground districts and the declining price of concentrates caused practically all those mines to close, and reduced the output of sheet-ground concentrates from a weekly average of 3,000 tons in 1916 to an average of about one-third of that quantity in recent weeks. This loss, which is permanent, involves a net reduction of the zinc resources of the country of over 50,000 tons of recoverable zinc in a year, as well as of lead concentrates containing 15,000 tons of lead.

New Jersey increased its output over 10,000 tons, the upper Mississippi Valley district gained 5,000 tons, and Arkansas made a creditable increase. Montana fell off nearly 25,000 tons, the loss being due largely to the strike in the Butte district. Colorado lost 10,000 tons, Utah 5,000 tons, New Mexico 4,000 tons, Idaho and California 3,000 tons each, and Nevada 2,000 tons. Of the total production, the Eastern States contributed 154,000 tons, or 22 per cent, the Central States 293,000 tons, or 43 per cent, and the Western States 243,000 tons, or 35 per cent. In 1916 the corresponding quotas were, Eastern States, 20 per cent; Central States, 38 per cent; and Western States, 42 per cent.

The following figures have been compiled without change by C. E. Siebenthal, of the United States Geological Survey, Department of the Interior, from reports furnished by all active smelters of zinc ores, showing their output for the first eleven months of the year and their estimated output for December. Figures showing the imports and exports for ten months were obtained from the Bureau of Foreign and Domestic Commerce, and to these figures have been added estimates for the remainder of the year.

SMELTER CAPACITY GREATLY REDUCED

Owing to the depression in the spelter industry and the necessity of curtailing production, two plants in Kansas, one in Chanute, and the other at La Harpe, have been dismantled, and nine more plants in Kansaas and Missouri will be dismantled. Twenty zinc smelters were not in operation. The first column in the following table shows the maximum retort capacity by states before any plants were dismantled, and it probably represents the maximum retort capacity in the United States for all time.

ZINC SMELTING CAPACITY, 1917

State.	Maximum number of retorts.	Retorts in operation Dec. 15, 1917.	Idle retorts Dec. 15, 1917.	Retorts under construction.
Illinois........	47,568	34,232	13,336	.....
Kansas........	44,054	11,826	29,406	......
Oklahoma....	77,899	50,491	27,408	......
Other States....	60,090	41,242	18,848	840
Total... ..	229,611	137,791	88,998	840

As shown by the table, 88,998 retorts out of 225,637, or 40 per cent, were idle. A number of additions to capacity that were planned early in the year were abandoned. The only retorts now under construction are the block of 840 at the Terre Haute, Ind., plant of the Grasselli Chemical Co. The new smelter of the United Zinc Smelting Corporation, at Moundsville, W. Va., has two blocks of 1,728 retorts completed, but they have not been operated, and no more are under construction. The acid plant, however, is being operated. The smelter and acid plant of the American Zinc and Chemical Co., at Langeloth, Pa., is down indefinitely on account of a strike. The furnaces and kilns are under repair. Three smelters with acid plants in Illinois are operating at half capacity on a hand-to-mouth basis on account of the difficulty of obtaining zinc concentrates due to the freight congestion.

PRODUCTION IS STATIONARY BUT VALUE DROPS GREATLY

The production of spelter from domestic ore in 1917 is estimated at 574,994 short tons, worth, at the average St. Louis spot quotation, about $102,350,000, and the production from foreign ore at 92,757 tons, a total of 667,751 tons worth $118,860,000, compared to a total of 667,456 tons in 1916 (563,561 tons of domestic origin, and 104,005 tons of foreign origin), worth $178,878,000 at the average St. Louis selling price. This indicates practically the same production as in 1916, but a loss of more than $60,000,000 in value. Included in the output is 28,175 tons of electrolytic spelter, of which a part was refined by electrolysis from prime western spelter. This was the product of five plants. The quantity of zinc dust prepared for market was over 7,000 tons. The output of secondary spelter redistilled at regular smelters and at the smelters with large retorts was about 21,600 tons.

Primary spelter was produced during the first half of the year at the rate of 722,000 tons a year, during the third quarter at the rate of 626,000 tons a year, and during the fourth quarter at the rate of 600,000 tons a year.

The production of primary spelter from both domestic and foreign ores, apportioned according to the states in which it was smelted, by six-months periods, was as follows:

Spelter Production, 1915-16, by States
[short tons]

State.	1916		1917	
	First half.	Second half.	First half.	Second half.
Illinois	90,082	90,268	95,149	79,668
Kansas	74,592	65,924	42,359	33,269
Oklahoma	73,298	90,790	109,130	89,389
Other States	78,480	95,054	114,500	104,287
	316,452	342,036	361,138	306,613
	658,488		667,751	

IMPORTS OF ZINC ORE REDUCED; EXPORTS OF SPELTER STATIONARY

The imports of spelter (mostly scrap, probably) are estimated at 270 short tons, valued at about $25,000, compared with 684 tons in 1916. Zinc dust was imported to the amount of 380 tons, worth $90,000. The imports of zinc ore in 1917 were approximately 215,000 short tons, containing about 75,600 tons of zinc and worth about $4,550,000, compared with 385,964 tons of ore, containing 148,147 tons of zinc, in 1916. The imports of zinc ore in the first ten months of 1917 originated as follows:

Zinc Ore Imported into United States, January-October, 1917

From	Ore.	Zinc content.	Value.
	Short tons.	*Short tons.*	
Canada	14,554	4,362	$294,669
Mexico	130,090	41,853	2,574,129
Spain	14,778	6,083	260,922
Italy	5,919	2,411	117,271
French Africa	1,246	623	66,346
Australia	27,731	12,502	753,598
Total	194,318	67,834	4,066,935

Exports of spelter and sheets made from domestic ore are estimated at 144,000 short tons, worth $37,000,000, compared with 163,137 tons, worth $51,312,990, in 1916. Exports of spelter made from foreign ore are estimated at 60,000, valued at $11,900,000, compared with 43,230 tons in 1916. The exports of zinc manufactures fell off to $400,000 in 1917 from $572,286 in 1916. The exports of brass are estimated at 169,000 tons, valued at $104,300,000, compared with 122,466 tons, worth $72,683,626, in 1916. Manufactures of brass were exported to the value of about $134,500,000, compared with $241,668,081, in 1916. The value of loaded cartridges exported in 1917 was about $41,000,000, against $55,103,904, in 1916.

The exports of spelter made from foreign ore, and of spelter and zinc sheets made from domestic ore, are shown in the following table:

Export of Spelter and Sheet Zinc, by Months, 1916-17, in Short Tons

Month.	1916		1917	
	Domestic.	Foreign.	Domestic.	Foreign.
January	10,483	3,531	15,531	2,650
February	10,328	3,919	15,549	4,860
March	8,171	575	17,408	8,230
April	9,133	1,902	12,669	3,248
May	8,583	4,811	19,528	9,946
June	11,309	5,459	13,095	1,757
July	12,709	4,508	8,863	2,240
August	18,662	4,232	11,283	758
September	19,125	965	8,749	19,625
October	19,994	6,110	6,057	2,451
November	18,988	4,260	......	......
December	15,652	2,958	......	......
	163,137	43,230	128,733	55,765

DOMESTIC CONSUMPTION SLIGHTLY DECREASED; STOCKS GREATLY INCREASED

The apparent domestic consumption of spelter in 1917 may be computed as follows: The sum of the stock on hand at smelters at the beginning of the year, 17,598 tons, plus the imports, estimated at 270 tons, and the production, 667,751 tons, gives the total available supply—685,619 tons. From this are to be subtracted the exports of domestic spelter and sheets, 144,000 tons, the exports of spelter made from foreign ore, 60,000 tons, and the stock on hand at smelters at the end of the year (to be exact, on December 5), 50,107 tons, or a total of 254,107 tons, leaving a balance of 431,500 tons as the apparent domestic consumption. This calculation takes no account of the stocks of spelter held by dealers or consumers. This shows a decrease of 28,000 tons when compared with the 458,428 tons apparently consumed in 1916. This decrease is partly accounted for by the increase of 15,000 tons in the zinc content of exports of brass. On the other hand, the exports of manufactures of brass decreased nearly one-half. The normal antewar consumption of spelter in the United States was about 300,000 tons.

The stock of spelter on hand at smelters, in transit, or in the hands of agents December 15, 1917, was 50,107 tons, as compared with 17,598 tons in hand or transit January 1, 1917, with 33,147 tons June 30, and with 47,186 September 30.

GREAT DECLINE IN THE PRICE OF SPELTER

The price of spelter at St. Louis started at 9.75 cents a pound, and after receding to 9 cents at the middle of January, rose gradually to 10.75 cents early in March. The price dropped to 8.9 cents late in April, rose gradually to 9.4 cents by the end of May, but in a series of declines, with short recoveries, reached 7.75, near which it closed the year. The average quoted price for the year for prime western spelter at St. Louis was 8.9 cents a pound, as compared with an average sales price for all grades of 13.4 cents a pound in 1916, and an average sales price of 12.4 cents in 1915.

The London official price of spelter started at £50 5s a long ton (10.6 cents a pound), and, roughly paralleling the St. Louis price, rose to £58 10s a long ton (12.4 cents a pound) early in March, declined again late in March, rose two-tenths of a cent early in April while the St. Louis price was dropping a cent a pound, and then, owing to governmental control, settled back to £54 a long ton (nearly 11.5 cents a pound), at which point the nominal price has since remained. The average London price for the year was £54 2s a long ton (nearly 11.5 cents).

The foregoing St. Louiss prices are those of the ordinary commercial grade of spelter. High-grade spelter suitable for cartridge spinning has been so much in demand that it has brought a good premium.

Most spelter is sold for future delivery, and in the preceding years of the war the average price has been considerably lower than the average spot quotations. For the first six months of 1917, however, spelter for future delivery brought within a half-cent of spot spelter, and in the last half of the year commanded a small premium over spot spelter. Taking into consideration the high grade of the spelter sold, the average selling price of spelter must have been above the average quotation for spot spelter, and the total value indicated elsewhere must be somewhat under the real figures.

Chicago to Get Smokeless Coal

The report, apparently widely circulated to the effect that the Fuel Administration contemplates ordering the discontinuance of smokeless coal shipments to Chicago is without foundation. In response to numerous telegrams received protesting against such an order the Fuel Administration sent the following telegram to Chicago coal companies:

"We are not contemplating discontinuance of shipments of smokeless coal to Chicago.

"Please advise source of your information to this effect. The Fuel Administration fully appreciates the importance of rendering every assistance possible in connection with the supply of coal for Chicago requirements."

Most of the mines in the Kanawha and New River coal fields in West Virginia have resumed operation after being put out of commission for several days due to the draining of a pool in the Kanawha River and shutting off power supplied by the Virginia Power Company.

UNCLE SAM IS NOW OPERATING RAILROADS

Improvement in Coal Distribution is Expected as a Result of Unification of Transportation Lines.

Overshadowing other big events of the past month is the taking over of the railways by the Government. The Secretary of the Treasury, Wm. G. McAdoo, was selected by the President to direct the operation of the country's transportation lines. This step is expected to be of greatest immediate aid in the distribution of coal.

A complete statement of the coal needs of the North Atlantic States, particularly New England, has been laid before the Director General of Railways by the Fuel Administration. Fuel Administrator Garfield has impressed upon the railway and shipping authorities the grave necessity for an immediate improvement in transportation conditions in order to relieve the needs of New England.

The Fuel Administration is furnishing full data to the representatives of the Director General as to the sources from which New England coal is moving in order that this coal may be hurried to New England along the shortest possible transportation lines.

A distribution schedule covering the North Atlantic States and eastern Ohio has been worked out by the Fuel Administration. This schedule shows the mining districts from which coal for this consuming territory is being supplied and the transportation lines along which the coal must move from the mines to the distributing centers. This information is expected to enable the railroad lines to take the amount of coal needed as directly as possible from the mines to central distributing points and thence on orders from State Fuel Administrators to the points of consumption.

Under this schedule the Fuel Administration seeks to aid the railroads in eliminating the cross-hauling of coal. Specific coal producing districts in West Virginia and Western Pennsylvania will be set aside to supply the distributing centers in the North Atlantic States.

Fuel Administrator Garfield discussed the transportation conditions as affecting the coal supply of New York, Philadelphia, Baltimore and the New England States at various conferences with Director General of Railways McAdoo.

No Extra Profit for Jobbers

The authorized advance of 35 cents per ton in the price of anthracite coal will not be allowed by the Fuel Administration on coal in the hands of jobbers or retailers when the increase was ordered by the President, effective December 1.

OVER 640,000 TONS OF LEAD MINED

Output for 1917 was 17,000 Tons More Than in 1916—Price at End of Year Unsatisfactory.

The high price of lead in 1916 stimulated activity in lead prospecting and lead mining. Further activity was stimulated by the extraordinary high price of lead in June, 1917, and by the gradual increase in the price of silver, which led to the reopening of silver-lead mines that had been abandoned years ago on account of the low price of silver. During the first half of 1917 the lead industry was therefore very prosperous, although there was a general increase in the cost of both labor and supplies. The great decline in price that set in just before the middle of 1917 continued until the end of the year when the price was lower than at the beginning of the year, but the decline was accompanied by no corresponding decrease in the cost of production, so that the producers complained that lead was selling below its actual cost.

The lead content of ore mined in the United States in 1917 was about 640,000 tons, as compared with 622,967 tons in 1916, a gain of 17,000 tons. The Joplin district gained 8,000 tons, California over 5,000 tons, Idaho 4,000 tons, and Washington and Montana 2,000 tons each. Tennessee, which made an annual output of only a few tons in previous years, reported a production of nearly 3,000 tons. Arizona and Utah lost about 4,000 tons each, and Colorado about 2,000 tons, as compared with 1916. The disseminated lead district of southeast Missouri remains the largest producer of lead ,the output for 1917 being practically the same as in 1916.

The Bunker Hill Smelter, at Kellogg, Idaho, was completed and put in operation during the year. The Empire Smelter and Refining Co. rebuilt the old smelter at Deming, N. Mex., and treated ores from April until October, when the plant was destroyed by fire. The Ontario Smelting and Refining Co. is building a soft-lead smelter in the northeastern part of Oklahoma, a few miles southwest of Baxter Springs, Kan. It will be equipped with four Newman automatic hearths, a lead stack, and a bag house.

The following estimates have been compiled without change by C. E. Siebenthal from reports made to the United States Geological Survey, Department of the Interior, from all the lead refineries and soft-lead smelters that were in operation during the year. These reports give the actual production of lead for the first ten or eleven months, and estimates of the output for the remainder of the year. The statistics of the imports and exports, and of lead remaining in warehouses have been made up from the records of the Bureau of Foreign and Domestic Commerce for ten or eleven months, and from estimates for the remainder of the year.

The production of refined lead, desilverized and soft, from domestic and foreign ores in 1917 is estimated at 599,000 tons, worth, at the average New York price, about $110,000,000, compared with 571,134 tons, worth $78,816,000, in 1916, and with 550,055 tons, worth $51,705,000, in 1915. The figures for 1917 do not include an estimated output of 20,000 tons of antimonial lead, worth about $4,600,000, compared with 24,038 tons in 1916, and with 23,224 tons in 1915. The production of desilverized lead of domestic origin, exclusive of desilverized soft lead, is estimated at 297,000 tons, against 316,469 tons in 1916, and 301,564 tons in 1915; and that of desilverized lead of foreign origin at 59,000 tons, compared with 18,906 tons in 1916 and 43,029 tons in 1915. The production of soft lead from Mississippi Valley ores is estimated at 243,000 tons, compared with 235,759 tons in 1916 and 205,462 tons in 1915. The total production of desilverized and soft lead from domestic ores was thus about 540,000 tons, valued at $99,000,000, compared with 552,228 tons, valued at $76,207,000 in 1916, a loss of about 12,000 tons. The loss of nearly 20,000 tons in domestic desilverized lead was partly offset by a gain of 7,000 tons in domestic soft lead, and much more than made up by a gain of 40,000 tons in desilverized lead of foreign origin.

The final figures for the production of soft lead will show an increase of a few thousand tons over those here given, for the smelters and refiners of argentiferous lead undoubtedly treated some soft lead ore from the Mississippi Valley, which, in their preliminary estimates, is not distinguished from silver-lead ore.

In consequence of the great demand and high price about 5,000 tons of secondary lead and over 4,000 tons of secondary antimonial lead were recovered at the regular smelters.

IMPORTS AND EXPORTS

The imports of lead are estimated at 20,000 short tons of lead in ore, valued at $2,200,000; 37,000 tons of lead in base bullion, valued at $5,100,000, and 4,400 tons of refined and old lead, valued at $650,000, a total of 61,400 tons, valued at approximately $8,000,000, compared with 35,330 tons in 1916. Of the imports in 1917 about 48,000 tons came from Mexico, against 25,919 tons in 1916.

The lead imported into the United States during the first ten months of 1917, comprising lead in ore, bullion, and pigs, and old lead, originated as shown in the following table:

LEAD IMPORTED INTO THE UNITED STATES JANUARY TO OCTOBER, 1917, IN SHORT TONS

	From Mexico.	From Canada.	From other countries.	Total.
January	2,665	1,762	33	4,460
February	964	292	918	2,174
March .	4,534	1,528	94	6,156
April .	4,162	515	647	5,324
May. .	5,680	365	198	6,243
June.... .	4,502	107	1,344	5,953
July...	3,653	164	4,381	8,198
August	7,509	1	271	7,781
September....	6,285	80	118	6,483
October.... .	2,510	33	386	2,929

The exports of lead of foreign origin smelted or refined in the United States showed considerable increase. They are estimated at 17,000 tons, worth $3,300,000, against 9,880 tons in 1916, and 38,618 tons in 1915. These figures do not include the lead in foreign lead manufactures exported with benefit of drawback, which amounted to 3,227 tons in the first half of 1917. For the last four years notable quantities of domestic lead have been exported to Europe, and the total for 1917 is estimated at 48,000 short tons, valued at $8,300,000, compared with 100,565 tons, valued at $13,508,203, in 1916.

PIG LEAD EXPORTED FROM THE UNITED STATES, JANUARY–OCTOBER, 1917, IN SHORT TONS

Month.	Made from domestic ores.	Made from foreign ores.	Foreign lead used in articles exported with benefit of drawback.
January.......	8,095	641	3,227
February.......	3,030	133	
March. . . .	3,744	959	
April....... .	3,454	2,382	
May	4,197	1,209	
June....	6,621	742	
July. .	3,135	90	. . ... .
August ...	1,905	89	. ...
September.....	4,346	104	.. ..
October.	2,665	10,520	. . . .

LEAD AVAILABLE FOR CONSUMPTION

The quantity of lead available for consumption during 1917 may be estimated as heretofore, by adding to the stock of foreign lead in bonded warehouses at the beginning of the year (12,369 short tons) the imports (about 61,400 tons) and the domestic production (540,000 tons), making an apparent supply of 614,000 tons. From this apparent supply should be subtracted the exports of domestic lead (48,000 tons), the exports of foreign lead (about 17,000 tons), the foreign lead contained in articles exported with benefit of drawback (about 5,000), and the stock of foreign lead in bonded warehouses at the end of the year (assumed to be the same as at the end of October, 16,777 tons), leaving as available for consumption 527,000 tons, compared with 477,384 tons in 1916.

UNPRECEDENTED HIGH PRICES FOR LEAD

At the beginning of 1917 the price of lead in New York was a little over 7.5 cents a pound, but it soon began to rise, reaching 10.5 cents late in February and early in March. The price declined to 9.25 cents early in April, but this decline was followed by a rise that reached 12.25 cents in the middle of June. A sharp decline then set in, and although there was a partial recovery late in July and early in August, the price went down to 5.5 cents in November. From this point the price gradually rose, and at the end of the year lead was selling in New York for about 7 cents a pound.

The official price of lead at London remained fixed at £30 10s a long ton (6.4 cents a pound).

PETROLEUM PRODUCTION BREAKS ALL RECORDS

Output of Country's Oil Wells for 1917 Totaled 341,800,000 Barrels, an Increase of 14 Per Cent.

Preliminary estimates by John D. Northrop, of the United States Geological Survey, Department of the Interior, indicate that the quantity of petroleum produced and marketed in the oil fields of the United States in 1917 reached the record-breaking total of 341,800,000 barrels, a quantity nearly 14 per cent greater than the former record output of 300,767,158 barrels, established in 1916. The production is apportioned among the major fields as follows:

Field	1916	1917
Appalachian............. .	23,009,455	24,600,000
Lima-Indiana.......... .	3,905,003	3,500,000
Illinois......... . .	17,714,235	15,900,000
Oklahoma-Kansas........	115,809,792	147,000,000
Central and North Texas..	9,303,005	11,000,000
North Louisiana....	11,821,642	8,700,000
Gulf Coast.....	21,768,096	24,900,000
Rocky Mountain ..	6,476,289	9,200,000
California...... .	90,951,936	97,000,000
Other fields...	7,705	....
Total....... . .	300,767,158	341,800,000

The salient features of the industry in 1917 were the record levels reached and firmly maintained by prices of crude oil at the wells and the enormous demand, which absorbed not only the current output of the wells, but necessitated a net draft of about 21,000,000 barrels of oil in storage, principally in California and Illinois. The surface reserve of crude oil in the United States at the end of 1917 is estimated at 153,000,000 barrels.

The principal sources of new production in 1917 were Estill County, Ky., Butler County, Kans., Carter County, Okla., Wichita and Harris Counties, Tex., Converse County, Wyo., and Los Angeles County, Cal.

STRIKES CUT DOWN MONTANA'S SHOWING

State's Mineral Production in 1917 Was $20,000,000 Under that of 1916, Despite High Price of Metals.

The value of the gold, silver, copper, lead and zinc mined in Montana in 1917, according to the estimate of Victor C. Heikes, of the United States Geological Survey, Department of the Interior, was nearly $113,000,000, a decrease of more than $20,000,000 from the value in 1916. There was an increase in the production of lead in the State, but a marked decrease in that of gold, silver, copper and zinc. The mines at Butte and the smelters at Anaconda and Great Falls were idle two months during the year on account of labor strikes. The prices of metals, except zinc, were unusually high. The cost of labor and material was also high.

The gold mined was valued at $3,371,000, a decrease from the value in 1916, which was $1,550,494. The decrease in the output of copper ore reduced the output of both the gold and silver. A marked decrease was also recorded in the gold won by dredges at Alder Gulch. There was an increase in gold bullion from the Barnes King properties, especially the Shannon mine, at Marysville Some bullion came from the new mill of the Bannack Gold Mining Company, at Bannack, in Beaverhead county. There was considerable activity in the Warm Springs district, of Fergus county.

The output of silver decreased from 16,404,366 ounces in 1916 to about 12,788,000 ounces in 1917. In spite of the increased price, the value ($10,358,000) was nearly $500,000 less than in 1916. Nearly all the silver is derived from copper ore, the production of which decreased for the year.

The output of copper in 1917 was about 278,000,000 pounds, a decrease of nearly 75,000,000 pounds from that of 1916. The value of the output was about $81,000,000, against nearly $87,000,000 in 1916. Practically all the larger copper producers made a smaller output than during former years, especially the Anaconda and North Butte. On the other hand, there was a slight increase from East Butte. In March the Anaconda plants produced over 31,000,000 pounds of copper. Had this rate continued for the year, Montana would have had a largely increased copper output, but the industry was seriously affected by the closing of the mines and plants in July, August, and part of September. Shipments were made from the Tuolumne, Davis Daly, and Bullwhacker mines, and a good output came from the Butte and Duluth leaching plant.

The mine output of lead increased from 13,595,136 pounds in 1916 to about 17,000,000 pounds in 1917. The price of lead evidently stimulated work on many of the lower grade lead mines. The lead concentrate from lead-zinc ore was less, however, on account of the decrease at the large zinc mines. At Troy, in Lincoln county, the new mill of the Snowstorm Mines Company was producing both lead and zinc concentrates in July, and marketed considerable quantities of both products. The Valley Forge mine, in Lewis and Clark county, shipped much lead ore to Helena for concentration.

The output of recoverable zinc from Montana amounted to about 180,000,000 pounds, against 229,259,075 pounds in 1916. Prices were lower in 1917, but the decrease was also due in part to labor troubles and to a lawsuit between the two main zinc producers of the Butte region. During the first quarter of 1917 the Butte and Superior Mining Company produced over 40,000,000 pounds of gross zinc, but it did not maintain this rate of production throughout the year. The Elm Orlu produced some ore, but considerably less than in 1916. The rest of the output of the State came from the mines of the Anaconda Company, the product of which is leached at Great Falls after being concentrated. Other shipments of zinc were made from the Snowstorm, at Troy, and the North Butte, at Butte.

The dividends for eleven months amounted to over $23,000,000. The principal dividend payers were the Anaconda, Butte and Superior, North Butte, East Butte, Barnes King, and Butte-Bullwhacker.

UTAH COAL OPERATORS ALLOWED HIGHER PRICES

New prices for coal produced in the Utah fields have been announced. Mining in Utah is conducted under exceedingly difficult conditions, which require a large outlay of capital.

The new Utah prices are: Run of mine, 2.80; prepared sizes, 3.30; slack, 2.50.

The old prices for Utah were: Run of mine, 2.60; prepared sizes, 2.85; slack, 2.35.

The increases allowed are outside of the general increase of 45 cents per ton allowed to mines operating under the so-called Washington labor agreement.

POWDER PRICE DISPUTE WITH MINERS ADJUSTED SATISFACTORILY

The controversy between Ohio operators and miners, over the price miners shall pay for powder has been settled without cessation of work at the mines or curtailment of output. The negotiations between the men and the employers were first begun in Washington at the instance of the United States Fuel Administration. When they failed to reach an agreement at the first meeting, United States Fuel Administrator Garfield called them into a second conference and notified them that the matter in dispute must be settled without interruption of mining operations.

UTAH'S METAL OUTPUT SELLS FOR $106.000.000

Year Just Closed Sees All Previous Records of Production Broken—15,000,000 Tons of Ore Mined.

The output of gold, silver, copper, lead and zinc from the mines of Utah in 1917, according to Victor C. Heikes, of the United States Geological Survey, Department of the Interior, had a value of over $106,000,000, an increase of nearly $17,000,000 over 1916. This is a record value for the State output, reached largely because of the high prices of silver, capper and lead. There was a decrease in the output of gold, lead and zinc, but the increase in the output of silver and copper and the higher prices greatly increased the total value.

During two months in 1917 two of the large smelting companies placed on their ore shipments an embargo, which affected particularly the smaller shippers. These larger companies limited their shipments to half the quantity called for in their contracts.

On account of the congestion of freight on railroads, it was difficult to get sufficient cars, but in spite of all difficulties about 15,000,000 tons of ore were mined during the year, against 13,920,643 tons in 1916.

The mines at Bingham produced about 14,275,000 tons of ore, an increase over the 12,777,683 tons minedf in 1916. A large part of the ore was moved by steam shovels. The porphyry copper ore mined amounted to 13,432,000 tons, an increase over the 11,767,996 tons mined in 1916.

The Tintic district, with more than forty shippers, produced about 413,000 tons of ore, which, however, included considerable oxidized iron ore shipped from the Dragon property to the smelters in the valley as flux. Even after this ore is deducted, however, the output still showed a slight increase over that of 1916, which was 365,949 tons. There were fourteen shippers, and each shipped over 4,000 tons during the year. The largest shipments were made by the Chief Consolidated, Iron Blossom, Centennial Eureka, and Dragon. The Tintic Milling Company treated local ore and produced considerable silver and copper, most of it from base bullion and precipitates shipped from points farther west.

From the Big and Little Cottonwood and American Fork districts nearly 55,000 tons of ore were shipped, a decided increase over the 42,828 tons shipped in 1916. The Cardiff mine, in the Big Cottonwood district, maintained its output of lead, and the Maxfield and Iowa properties made large shipments. The Michigan-Utah, South Hecla, Columbus Rexall, and Emma mines, at Alta, made increased output.

The shipments of ore and concentrate from Park City increased from 81,072 tons in 1916 to about 95,000 tons in 1917. The value of the output of Park City will be nearly $7,000,000 for 1917, as there was decided increase in the shipments of both silver and lead. The main producers were the Silver King Coalition, Judge Mining and Smelting, Ontario, Silver King Consolidated, Daly West, and Daly Mining Company, each of which shipped more than 4,000 tons.

The shipments of ore and concentrate from Beaver county increased from 57,206 tons to over 70,000 tons. The principal producers in the vicinity of Frisco were the Horn Silver, the Utah Leasing Company, working on copper tailings, and the Caldo Leasing Company, making zinc concentrates from Horn Silver tailings. Part of the Horn Silver milling ore was shipped to Midvale for concentration. The large producers in other districts of Beover county were the Montreal, Majestic, Monitor, and Copper Ranch.

The shipments of crude ore and milling ore from Tooele county, including those from the Ophir, Stockton, Rush Valley, Clifton, and other smaller districts, amounted to about 141,000 tons, against 124,695 tons in 1916.

In the Rush Valley district large shipments were made from the Bullion Coalition and New Stockton properties.

In the Clifton district, or Deep Creek region, the new railroad was operated, and a considerable quantity of low-grade copper ore was shipped, principally from the Western Utah Copper Company.

In the Ophir district the main producers were the Ophir Hill Consolidated, Ophir Coalition, Hidden Treasure, and Cliff.

The production of gold in Utah decreased from $3,574,947 in 1916 to about $3,489,000 in 1917. All the gold, except a very small amount of milled bullion and placer dust, was derived from copper, lead and zinc ores smelted.

The output of silver increased from 13,253,037 ounces in 1916 to about 14,385,000 ounces in 1917, and the value of the output increased nearly $3,000,000, as the price of silver was unusually high. The Park City region produced more than 3,000,000 ounces of silver, principally from lead ores. Several properties at Bingham, including the Utah Apex and Utah Consolidated, produced less silver, on account of the decrease in the shipments of lead ore.

There was a record output of copper in Utah in 1917, amounting to nearly 245,000,000 pounds, against 240,275,222 pounds in 1916. The increase was only about 2 per cent in quantity, but over $12,000,000 in value. Of the total output of copper in the State, the Utah Copper Company produced approximately 80 per cent. During May and June this company produced over 19,000,000 pounds of copper per month, but the average for the year was somewhat over 16,000,000 pounds per month. Improvements in progress at the mills will ultimately increase the output of concentrates and improve the recovery. A large leaching plant to treat oxidized copper ore was completed during the year, and will be ready for regular production in 1918. Other important copper producers of the Bingham district are the Ohio Copper, the Yampa mine, Bingham Mines, United States Mining Company, Utah Consolidated, and Utah Metal and Tunnel Company. In San Juan county a leaching plant was erected at the Big Indian property.

The mine output of lead in Utah decreased from 201,490,075 pounds in 1916 to over 193,000,000 pounds in 1917. The value of the output increased from nearly $14,000,000 to over $17,000,000 in 1917, as the average price of lead was approximately 9.2 cents a pound. There was a distinct increase in the output of the Park City region, especially at the Silver King Coalition, Daly Judge, Silver King Consolidated, and Daly West properties. At Bingham a fire closed the Utah Apex mine for a considerable period, and decreased the shipments of lead ore. The low price of lead toward the end of the year prevented many of the small operators from shipping lead ore.

The output of recoverable zinc decreased from over 29,000,000 pounds in 1916 to about 22,000,000 pounds in 1917, or more than 25 per cent The value of the output decreased from $3,962,719 to slightly more than $2,000,000. There were thirty-three producing properties, the most productive of which were the Daly Judge, Caldo Leasing Company, Utah Apex, United States Mining Company, Midvale Mineral Company, Childers Leasing Company, Scranton, Lake View, Chief Consolidated, and Horn Silver. Most of the product was shipped to Eastern smelters, but part of it was taken to the electrolytic zinc plant at Great Falls, Mont. The Judge Mining and Smelting Company began to produce electrolytic zinc at its plant at Park City in 1916.

Incomplete dividends of Utah mines amounted to nearly $29,000,000 in 1917, against $21,376,567 in 1916. These were the Utah Copper, Mammoth, Silver King Consolidated, Utah Consolidated, Judge Mining and Smelting Company, Utah Apex, Eagle and Blue Bell, Iron Blossom, Dragon, Moscow, Chief Consolidated, Utah Metal, Gemini, Daly, Horn Silver, Grand Central, Tintic Standard, Bingham Mines Company, and Utah Leasing Company.

Not to Ask Schools to Close

Fuel Administrator Garfield declared that the Fuel Administration does not contemplate the closing of schools in the northern and central states during January and February. The suggestion that school sessions be suspended as a means of saving coal came to the Fuel Administration from outside sources, but it has not been given favorable consideration.

GOVERNMENT BUYS 100,000 TONS OF NITRATE FOR USE ON FARMS

David F. Huston, Secretary of Agriculture, made the following statement regarding the purchase of 100,000 tons of Chilean nitrate for fertilizer use by farmers under the provision in the food control act which authorizes the President to procure nitrate of soda for this purpose and to supply it to farmers for cash at cost:

"I have been giving a great deal of thought and attention to the nitrate question. I have been in daily touch with the War Industries Board, which was to purchase and deliver the material at the seaboard, and also with the Shipping Board. Arrangements were completed several weeks ago through the War Industries Board, under the immediate supervision of Mr. Baruch, to purchase approximately 100,000 tons of nitrate of soda in Chile, in accordance with the authorization for such purpose in the food control act. Because of disturbed shipping conditions, it has been impossible until recently definitely to secure facilities for transporting the nitrate in whole or in part. Within the last few days preparations have been completed for the delivery at the seaboard during January of 18,000 tons, and every reasonable assurance has been given that supplies up to the 100,000 tons for the ensuing months will be delivered. Every possible effort will be made to make certain these deliveries, but it should be understood that on account of existing situations circumstances over which there is no control might intervene.

"I cannot state today exactly what the price will be, but it will be approximately $75 on board cars at the seaboard. Farmers will have to pay freight charges to their local stations, the State fertilizer tag fee, which varies in different States, but will probably not average more than 25 cents a ton, and any other local charges.

"The nitrate secured under the appropriation will be sold only to farmers for their own use during the coming season, and generally not in excess of the amounts used by them heretofore. The department is now arranging machinery for the distribution of the material, and will give full publicity concerning the details of the matter."

Du Ponts Continue to Expand

The paint and wood finishing business of the Bridgeport Wood Finishing Company of Still River, Conn., has been purchased by E. I. du Pont de Nemours & Co.

The purchase of the Bridgeport concern makes that company a part of the Du Pont American Industries with their extensive facilities for the manufacture of many chemical raw materials.

VALUE OF NEVADA'S METALS SHOWS INCREASE

Despite Marked Decrease in Gold and Silver Value State's Mineral Production Was Over $53,000,000

The value of the gold, silver, copper, lead and zinc mined in Nevada in 1917 was over $53,000,000, according to preliminary figures compiled by Victor C. Heikes, of the United States Geological Survey, Department of the Interior. This total represents an increase of over $3,000,000, in spite of the fact that there was a slight decrease in recoverable zinc and a marked decrease in both gold and silver. There was a fair increase in the output of both copper and lead. The average prices of silver, copper and lead were unusually high in 1917, and this fact had much to do with making the total value greater than that of the previous year.

The gold output of Nevada in 1917 was valued at $6,852,000, a decrease of about $2,000,000. This decrease was due in great part to the reduced output of the Goldfield Consolidated Mining Company, which has for years been the main gold producer of the State. The production of the Tonopah district, the ores of which contain considerable gold, was also less. The gold output was valued at about $1,612,000, against $1,941,441 in 1916. The main producers were the Tonopah Belmont, Tonopah Mining Company, Jim Butler, Tonopah Extension, and West End. Much gold came from the Elko Prince, the Aurora Consolidated, at Aurora; the Round Mountain placer and quartz properties, the Rochester district, and the mines at Manhattan, where there was renewed activity. At the White Caps mine a large ore body is developed from five levels. The new mill, with roaster, was active during the last part of the year, making a considerable output. The War Eagle, Big Pine, and Union Amalgamated mills were also operated, and a large amount of placer gravel was treated by twelve operators. Bullion production from Seven Troughs district decreased, as did the placer output from the Battle Mountain district of Lander county, but the mills in Eldorado canyon, in Clark county, were unusually active. The National mine, a large producer in the past, was unproductive in 1917. About one-sixth of the gold came from copper ore and lead ore, mainly from copper ore.

The production of silver decreased from 13,837,525 ounces in 1916 to about 11,394,000 ounces in 1917. The price of silver, which averaged about 81 cents an ounce, gave this output a value of $9,229,000, which is slightly more than the value of the output in 1916. The principal silver producers were the mines at Tonopah, the Nevada Wonder, the Rochester Mines Company, Nevada Packard, Elko Prince, Comstock properties, Yellow Pine, and Nevada Hills. With the improved price, it was possible to treat low-grade ore, especially at Tonopah, where the silver output decreased to about 7,500,000 ounces from 8,734,726 ounces in 1916. The Tonopah Belmont, Tonopah Mining, and Tonopah Extension each produced more than 1,000,000 ounces of silver, as well as considerable gold. The Mexican mill, at Virginia City, treated custom ore, largely from the Union Consolidated mine, but the bullion output of the district was much less.

The copper production of Nevada increased to nearly 110,000,000 pounds in 1917, an increase of nearly 5,000,000 pounds over that of the previous year. The value of the output increased from $25,858,736 to about $32,000,000. The main copper producer, as formerly, was the Nevada Consolidated, at McGill. The company was milling over 300,000 tons of ore a month, and shipped a first-class product. The production from the smelter was somewhat less than in 1916, but the loss was more than compensated for by the operation of the Mason Valley plant, in Lyon county. A large part of the ore treated came from the Bluestone mine. Large quantities of copper ore were shipped to other copper plants, especially from the Yerington district in Lyon county; the Santa Fe and Silver Star districts of Mineral county, and from the Robinson district, in the vicinity of Ely. The Copper Canyon Mining Company, in the Battle Mountain district, made a large output. The Consolidated Copper Mines Company, at Ely, contributed a large quantity of both crude ore and concentrates. The mill was remodeled and improved, and toward the close of the year treated more than 600 tons a day.

The production of lead increased from 25,637,278 pounds in 1916 to over 28,000,000 pounds in 1917. The value of the output increased from $1,768,972 to about $2,537,000. The principal lead producing districts are the Pioche, of Lincoln county, particularly the Prince Consolidated mine and the Yellow Pine district of Clark county. The Bullion and Goodsprings Anchor properties, in the Yellow Pine district, increased their output of lead. Considerable ore was mined at the Groom property, in southwestern Lincoln county; at the Hamburg property, near Pioche; at the Union Mines Company, and at properties in the Eureka district of Eureka county.

There was a decrease in the production of recoverable zinc from 32,443,189 pounds in 1916 to about 28,500,000 pounds in 1917. The value of this output decreased considerable from over $4,000,000 to about $2,613,000. The Yellow Pine property, in the Yellow Pine district in Clark county, continued to supply the largest quantity of zinc produced by any mine in the State. The Potosi mine, of the Empire Zinc Company, was also a larger producer. Zinc was also produced by the Nevada Zinc Mining Company, in Elko county; Lone Mountain district, in Esmeralda county, and Ely, in White Pine county.

The dividends declared by Nevada mining companies in 1917 amounted to over $11,000,000. The largest was that of the Nevada Consolidated, which paid over $8,000,000. Others were the Tonopah Belmont, Tonopah Mining Company, Jim Butler, Yellow Pine, Nevada Hills, Tonopah Extension, Boss, West End, Hamburg, Nevada Wonder, Uvada, Rescue Eula, and Prince Consolidated.

PRODUCTION AT HOMESTAKE MINE SHOWS AN INCREASE

The production of gold from mines in South Dakota in 1917 was $7,412,000, compared with $7,460,644 in 1916, and that of silver was 193,000 ounces, compared with 215,206 ounces in 1916. In addition, 88,000 pounds of lead were produced from smelting ores shipped. These are preliminary estimates, reported by Charles W. Henderson, of the United States Geological Survey, Department of the Interior.

The Homestake mine and amalgamation-cyanidation mills were operated continuously throughout the year, with an increased output. The Golden Reward, Mogul, and Trojan mills were operated on both company and custom ore. The Deadwood-Standard cyanidation mill was operated on ore from the Elk Mountain mines during part of the year. The Bismarck, Reliance, and Wasp No. 2 mills were idle. Lead-silver ore was shipped from the Galena district.

Placer mines in Custer, Lawrence, and Pennington counties were not actively worked.

GOVERNOR BOYLE ATTENDS MINING CONFERENCES HERE

Among the strong men of the West who have attended the mining conferences in Washington during the last few weeks was Governor Emmett Derby Boyle, of Nevada. Governor Boyle came to Washington primarily in behalf of the silver miners, and was prominent in the conferences concerning the War Excess Profits Tax Law.

Governor Boyle is a native of the State which has honored him with the chief executiveship. He was born on the old Comstock lode, at Virginia City, July 26, 1879. His father was Col. Edward D. Boyle, manager of various "south end" mines on the Comstock lode for thirty years, and he was also extensively interested in the mines of California and Oregon.

The son early became interested in the work of his father, and attended the Mackay School of Mines at Reno, receiving his final degree of Mining Engineer in 1903. Upon leaving school he joined the staff of the British America Corporation, Rossland, B. C., and from there he went to Mexico, where he was civil engineer and later superintendent for the great Esparanza mine.

Upon the death of his father in 1902, he returned to Virginia City and took up the management of Comstock lode properties. He was, for five years, general manager of the North Rapidan, at Como, Nev., owned by Col. James Guffey, of Pittsburgh.

Engineer Boyle took up private practice at Reno in 1907, and made a specialty of the technical phases of mining litigation. He designed and constructed the plant of the Pacific Portland Cement Company, at Mound House, Nev. He was appointed State Engineer of Nevada in 1910. He served one year and resigned to continue his private practice as an engineer. He became a member of the Nevada Tax Commission in 1913, serving as the mining member of the group for two years. At the same time he was specializing in economic geology and cement work.

It was in 1914 that Mr. Boyle was pursuaded to enter the Democratic primaries for the governorship of Nevada. He was nominated and elected, and took office January 1, 1915. His term expires January 1, 1919.

The Governor has been a contributor on technical subjects to various scientific publications, and has made a thorough study of mine taxation, and has been generally credited with the successful adjustment of the mine tax situation in Nevada.

CRUDE OIL PRODUCTION FALLS OFF IN NOVEMBER

The petroleum summary for November indicates a general, though moderate, decrease in crude oil production that may be regarded as seasonal, except in the north Louisiana and Gulf coast fields, where field operations were below normal in consequence of a strike of oilfield workers called November 1. With regard to crude oil consumption, it indicates demand in excess of current supply in all fields except the Gulf coast, and demand in excess of October requirements so far as Lima-Ind., north Texas and Rocky Mountain oils are concerned, though less than in October for the product of the other fields listed. Stocks were drawn upon in November in all fields (notably in the Oklahoma-Kansas field) except the Gulf coast, where, despite the strike, slight additions to surface reserves were made. The summary was prepared under supervision of J. D. Northrop, of the Geological Survey.

Crude petroleum moved from field sources is shown as follows (the figures refer to November, 1917; October, 1917, and November, 1916, respectively): Appalachian, 2,011,109, 2,147,178, 1,805,250; Lima-Indiana, 279,841, 298,506, 310,396; Illinois, 1,235,761, 1,311,554, 1,453,095; Oklahoma-Kansas, 13,185,505, 13,339,669, 9,668,341; central and north Texas, 986,244, 991,924, 792,560; north Louisiana, 339,836, 826,179, 782,689; Gulf coast, 1,613,538, 1,815,471, 1,460,692; Rocky Mountain, 776,733, 843,697, 628,184.

WASHINGTON'S LEAD OUTPUT INCREASED OVER 9,000,000 POUNDS

The value of the gold, silver, copper, lead and zinc mined in Washington in 1917, according to the estimate of C. N. Gerry, of the United States Geological Survey, Department of the Interior, was about $2,238,000, an increase of 9 per cent over the value in 1916. There was a decrease in the production of gold, silver, copper and zinc, but an increase in that of lead. This increase and the higher prices of metals in 1917 gave the output a value slightly above that of 1916, which was $2,048,350. Strikes at the Canadian smelters at different times during the year caused a curtailment of shipments from Washington, especially from the Republic and Chewelah districts. The plant at Trail, B. C., which owns and operates several mines at Republic, was idle in December. The Northport Smelting and Refining Company, however, operated a lead plant throughout the year and received much of the siliceous ore from Republic.

The mine production of gold decreased from $577,655 in 1916 to about $486,000 in 1917. The Boundary Red Mountain mine, in Whatcom county, was among the principal gold producers. The production of the Republic district, the main gold producer of the State, was seriously affected not only by strikes, which closed the mines, but by labor troubles at the smelters. The output of the district, which was 45,313 tons in 1916, was reduced to about 36,000 tons in 1917. The Lone Pine-Surprise-Pearl property was in 1917, as formerly, the main shipper. The Knob Hill was next, and the Tom Thumb, Quilp, Hope, and San Poil were large contributors. Several properties in the district are being efficiently developed. A new shaft was sunk at the Knob Hill mine, and further depth was gained at the Last Chance and the Lone Pine properties.

The mine output of silver decreased to about 257,000 ounces, or over 23 per cent. The value of the output was about $208,000. Most of this silver came from copper ore mined in the Chewelah district, and a large part of the remainder from siliceous ores mined in the Republic district. The ore output of both districts was less than in 1916.

The copper output decreased to about 2,000,000 pounds, valued at $607,000. The output of copper ore and concentrates would have been much greater if the smelters had been able to receive the ore. At the United Copper mine, in the Chewelah district, sinking was in progress below the 1,000-foot level. Several dividends were paid during the year. The shipments of crude ore and concentrates averaged nearly 600 tons a month. The Sunset mine made shipments of copper ore during the first half of the year, and some ore was shipped from the Loon Lake Copper property, in Stevens county. In May a shortage of coke prevented further shipments from the smelter at Trail. Several shipments of copper ore were made from the High Grade property, at Turk, in southwestern Stevens county.

The lead output increased to over 9,000,000 pounds, valued at about $824,000, representing an increase of nearly 4,000,000 pounds in quantity and $450,000 in value. The product came largely from carbonate and sulphide ores mined at the Electric Point property, in the Northport district, Stevens county, which was profitably operated during the year. Other properties in the district having first-class or milling lead ore are the Gladstone, Mineral Belt, Providence, and Iroquois. A few shipments were also made from the Bonanza mine, in the Bossbur district, Stevens county.

There was a marked decrease in the zinc output in 1917, for the Great Western and Last Chance properties ceased operations in 1916. The ore shipped from the Lead Zinc property, at Metaline Falls, however, produced more than a million pounds of spelter. Part of the ore was shipped to Eastern zinc smelters and part was treated in the electrolytic plant at Trail, B. C.

The dividends paid by Washington mines for eleven months of 1917 amounted to $213,163. The mines making payments were the Electric Point, United Copper, Knob Hill, and Loon Lake mines.

Rail Shipments to Northwest Stop

The voluntary curtailment of all rail shipments of coal to the northwestern states during the next ninety days was proposed in a telegram received December 20, by United States Fuel Administrator Harry A. Garfield from John F. McGee, State Administrator for Minnesota. The suspension of shipments was proposed after conferences held by the Northwestern Administrators with W. H. Groverman in charge of the distribution of coal in the Northwest.

By the exercise of strict economy in the use of coal it is hoped that the northwestern states will be able to get along for the next three months with the supply secured by lake transportation before winter closed navigation on the lakes. The suspension of rail shipments to the northwest is expected to operate to relieve transportation difficulties. In his telegram, State Administrator McGee said:

"After very careful consideration of the entire situation as to bituminous coal, we conclude, in view of the distress of the Middle States, that we can get along for the next 90 days without rail shipments from other States. I am compelling the general use of wood in the northern part of the state. Today the Soo and Great Northern railroads have agreed to furnish a supply of cars to move all wood fuel in wooded part of state. Cutting down all unnecessary use of coal and shutting down street lighting altogether, outside of the large cities between 5.00 p. m. and 6. a. m. will enable us to relieve distressing situation in other States."

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"TAG-YOUR-SHOVEL" DAY EXPECTED TO AID COAL CONSERVATION

The United States Fuel Administration has announced that January 30, next, will be National Tag-Your-Shovel Day. The twenty-one million three hundred fifty thousand school children of the country on that day will perform the patriotic work of tagging the coal shovels in American homes.

Tag-Your-Shovel Day falls on Wednesday, and it is expected that governors, mayors and teachers will unite in arranging for a school holiday—one of the few special national school holidays ever proclaimed. Two great printing plants are now turning out the tags and posters, and it may be taken for granted that all the children everywhere except those who are unfortunate enough to be down with measles or mumps or something, will be on the job January 30, for Uncle Sam.

The tags, on the face, bear this wording: "Save that shoveful of coal a day for Uncle Sam." On the reverse are these hints on saving coal:

"1. Cover furnaces and pipes with asbestos, or other insulation; also weather strip your windows, or stuff cracks with cotton.

"2. Keep your rooms at 68 degrees (the best heat for health).

"3. Heat only the rooms you use all the time.

"4. Test your ashes by sifting. If you find much good coal, there is something wrong with your heater. See a furnace expert.

"5. Write to the maker of your furnace or stove for practical directions for running economically.

"6. Save gas and electric light as much as possible—this will save coal for the nation."

The Fuel Administration points out that this tag day is different from all other tag days. Instead of asking for cash contributions, the school children will demand that householders save money—save money for food, for war savings stamps, for liberty bonds, and at the same time add to the Government's coal pile.

A million car loads of coal, more than ever was taken out of the ground in this country in a single year, will have been mined and delivered in 1917. Another million car loads were needed, but no human power could make so sudden an increase in production where the bare physical requirements were on so vast a scale. But the necessities of the war cannot wait and the American people must face a typical American problem, meeting and satisfying an unheard of increase in demand for coal with inadequate facilities for creating increased supply.

The school children will not neglect any coal shovels, no matter how humble or how exalted they may be. President Wilson's shovel at the White House will be tagged, as well as the shovels of governors, mayors, millionaires and wage-workers.

In the minds of the Fuel Administration officials and the boys and girls of the schools Tag-Your-Shovel Day will be a serious occasion. Its main purpose is to help supply the machine power to help the man power win the war.

Coal Land Open to Entry

Secretary of the Interior Lane announces the restoration of 238,082 acres of land in the former Fort Berthold Indian Reservation, North Dakota to coal entry. The coal is classified as lignite and is subject to disposition at the minimum prices of $10 and $20 per acre, according to its distance from a railroad. The opening of these lands to entry results from their classification by the Geological Survey as coal and the recent enactment of legislation by Congress permitting their disposition.

Hess Honored

Frank L. Hess, a geologist of the U. S. Geological Survey has been made honorary curator of rare metals and rare earths of the National Museum.

OUTPUT OF COLORADO MINES SHOWS DECREASE

Decline in Zinc Production Mainly Responsible for Total Lower Than 1916.

The mine output of gold, silver, copper, lead and zinc in Colorado for eleven months of 1917 and the estimated output for December, according to data compiled by Charles W. Henderson, of the United States Geological Survey, Department of the Interior, amount to about $16,020,000 in gold, 7,327,000 ounces of silver, 67,500,000 pounds of recoverable lead, 8,700,000 pounds of copper, and 114,000,000 pounds of recoverable zinc, having a total value of nearly $40,600,000, compared with $19,153,821 in gold, 7,656,544 ounces of silver, 70,914,087 pounds of lead, 8,624,081 pounds of copper, and 134,285,463 pounds of zinc, having a total value of $49,200,675 in 1916. This estimate shows a decrease of $3,133,000 in gold, 330,000 ounces of silver, and 3,400,000 pounds of lead. The production of copper showed a slight increase, but that of zinc showed a decrease of about 20,000,000 pounds. With the increased average prices for silver and lead, there was an increase of $926,000 for silver and $1,317,000 for lead. The decrease in the value of zinc was nearly $8,000,000.

The lead smelters in the State, at Globe, Leadville, Pueblo, Durango, and Salida, were operated about as in 1916, the ore coming from Arizona, Canada, Colorado, Idaho, South Dakota, and other States, and including a large quantity of zinc residues from Kansas and Oklahoma smelters. The flotation plant installed in 1916 at the Durango smelter to remove the zinc from the zinc-lead sulphide ores of the San Juan region continued to be operated during 1917. The copper matting plants at Ouray and Vulcan were idle. The United States Zinc Company's wet concentration mill and zinc smelter at Pueblo were actively operated on zinc ores from Colorado and other Western States. The Western Chemical Company's acid plant and magnetic separation wet concentration mill at Denver and the Empire Zinc Company's 200-ton magnetic separation plant at Canon City were operated steadily, both treating chiefly Leadville lead-zinc sulphide ores. The River Smelting and Refining Company's plant at Florence continued to treat zinc-lead-copper sulphide ores from several counties in Colorado, part of the product being forwarded to this company's electrolytic zinc plant at Keokuk, Iowa. The Western zinc-oxide plant at Leadville was operated steadily on zinc carbonate ores. Copper ore and cyanide precipitates were shipped from Colorado to the smelter at Omaha, Nebr., and some copper and lead ores were shipped to plants in Utah

As predicted in the six months' review of operations in Colorado, the production from Cripple Creek was less than in 1916, but the production during the last six months of 1917 was somewhat larger than during the first six months, and the total production of Cripple Creek for the year was $10,549,000, a decrease of $1,570,000. During the year the Roosevelt tunnel was continued so as to end at the Portland mine, not at the Golden Cycle-Vindicator mine, as originally intended. A cross-cut was also started toward the Cresson mine. The Portland Company abandoned its plan of using the flotation process in its Independence mill, at Vindicator, and continued to use the cyanide process with considerably increased capacity. The Vindicator Company continued its experiments with the flotation process.

The Golden Cycle cyanidation mill, at Colorado City, and the Portland cyanidation mill, at Colorado Springs and Victor, were operated steadily. The yield from the small cyanide plants of the Cripple Creek district was not so large as usual, and the shipments of smelting ore directly to smelters fell off considerably.

Lake county, chiefly Leadville, but including also the Lackawanna Gulch, Sugar Loaf, St. Kevin, and the Wortman lode districts and the Arkansas river dredge district, produced $1,203,000 in gold, 2,240,000 ounces of silver, 20,000,000 pounds of lead, 2,177,000 pounds of copper, and 59,500,000 pounds of zinc, having a total value of $10,700,000, against $1,720,440 in gold, 2,931,281 ounces of silver, 2,621,675 pounds of copper, 21,719,392 pounds of lead, and 76,785,567 pounds of zinc, having a total value of $16,082,059, in 1916. Shipments of manganese-iron ore, manganese-silver fluxing ore, lead carbonate, and zinc carbonate ores continued in increasing quantities from the Downtown district, unwatered in 1916. Some zinc carbonate and zinc sulphide ores were shipped from the Fryer Hill district, also unwatered in 1916, and considerable iron-sulphide ores were shipped from the unwatered Carbonate Hill district. The output of zinc carbonate from the Leadville district decreased heavily. The output of zinc carbonate was 68,500 tons of 19.6 per cent, as compared with 85,513 tons of 21.52 per cent in 1916. The zinc sulphide smelting and concentrating ore was 130,000 tons of 21.7 per cent, against 147,295 tons of 20 96 per cent in 1916. The Derry Ranch dredge, below Malta, continued operations during the year.

The San Juan region of Dolores, La Plata, Ouray, San Juan, and San Miguel counties produced $2,588,000 in gold, 2,556,000 ounces of silver, 20,821,000 pounds of lead, 3,745,000 pounds of copper, and 6,700,000 pounds of zinc, valued in all at $8,100,000, against $3,041 275 in gold, 2,224,311 ounces of silver, 16,345,768 pounds of lead, 3,072,199 pounds of copper, and 5,361,209 pounds of zinc, with a total value of $7,107,291, in 1916. The San Miguel county mills maintained their production of gold, which was about $2,000,000, and increased their production of silver to over 1 000,000 ounces, but considerable quantities of the ore treated in these mills came from operations in Ouray county along the strike of the veins. San Juan county produced considerably less gold, but made an appreciable increase in the output of silver and a large increase in the output of lead, copper and zinc. The yield of zinc in Dolores county increased heavily, but the yield of the other metals fell off somewhat. In Ouray county there was naturally a heavy decrease in the output of gold, due to the idleness of the Camp Bird mill, both the mine and mill having been closed down in August, 1916, to await the completion of the low-level adit, which was driven steadily during 1917. This adit is to be 10,700 feet long, and will cut the Camp Bird 150 feet below the present deepest workings and 800 feet below workings of the next most important section.

Boulder, Gilpin and Clear Creek counties produced $808,000 in gold, 956,000 ounces of silver, 1,210,000 pounds of copper, 6,336,000 pounds of lead, and 3,300,000 pounds of zinc as compared with $1,001,189 in gold, 881,518 ounces of silver, 1,213,756 pounds of copper 5,681,392 pounds of lead, and 2,572,575 pounds of zinc in 1916. Boulder county produced $50,000 less gold and 12,000 less silver, also less copper and lead. Clear Creek county increased its output of silver, lead, copper and zinc, but decreased considerably its output of gold. The production of gold in Gilpin county fell off approximately $100,000, but there was an increase in the output of lead, and for the first time in years there was an output of zinc.

In Chaffee county the output of gold, lead, copper and zinc fell off, but the output of silver increased. The output of Pitkin county (Aspen) was 649,000 ounces of silver and 13,633,000 pounds of lead, an increase of 71,000 ounces of silver, but a decrease of nearly 4,000,000 pounds of lead. The output of zinc from this county, however, increased approximately 300,000 pounds.

The production of Creede (Mineral county) fell off considerably, as did that of Gunnison county.

Summit county produced $623,000 in gold, 157,000 ounces of silver, 620,000 pounds of lead, 30,000 pounds of copper, and 19,000,000 pounds of zinc, as compared with $673,891 in gold, 120,207 ounces of silver, 14,581 pounds of copper, 1,688,637 pounds of lead, and 13,910,918 pounds of zinc in 1916. The four gold dredges at Breckenridge produced about the same output as in 1916, but the output of pocket gold was not equal to that of 1916. During the later part of the year a new dredge was launched in this district. There was very little activity at Montezuma, but several properties continued to work at Kokomo.

Mining was very active at Red Cliff, Eagle county, though the yield of zinc was somewhat less than in 1916. Some shipments were made from the Brush Creek district.

The output from both lode and placer mines in Park county decreased.

The output from the mines of Custer county was the largest for several years, and there was also a considerably increased production from the Kerber Creek district of Saguache county.

CARDINAL GIBBONS URGES MINERS TO WORK ON HOLY DAYS

The efforts of the Fuel Administration to secure a maximum output of coal during the Christmas holidays by keeping the mines at work were endorsed in a letter from Cardinal Gibbons. Cardinal Gibbons said:

"In reply to your letter of recent date relative to the coal shortage which exists throughout the country, I am pleased to say that I approve of your suggestion that the miners perform their ordinary tasks upon holy days and holidays until the present crisis is over. It will be of invaluable service to the country and to humanity, if they will work regularly and avoid unnecessary loss of time, for every ton of coal which they place at the disposal of the country's industries, contributes in large measure towards the success of the nation in the titanic struggle upon which we have entered. Towards accomplishing this laudable purpose I would kindly suggest that the public places, selling intoxicating drinks, might cooperate with the efforts of the Government by closing their bars from nine o'clock in the evening until eight o'clock the following morning. This surely would not work any hardship on the patrons, on the contrary it would benefit them and give them more time to spend with their families, while at the same time contribute to their greater efficiency. These are days of sacrifice and I feel confident that our men in the coal regions will not be less generous of their best efforts than any others in the country. Up to the present they have done splendidly and I have no reason to think that they would slow down in the least in their part of national service."

LIGHTLESS NIGHTS ORDERED TO HELP SAVE COAL

The Fuel Administration, in an amended order issued December 14, put into effect "lightless nights" on two nights of each week. These nights are Sunday and Thursday. The first "lightless night" in the United States since electricity began to be used for illumination, was Sunday night, December 16.

Under the new order the "white ways" of all cities disappear absolutely on the nights designated. The burning of lights contrary to the wording and spirit of the order constitutes a violation of law and steps will be taken by the Fuel Administration to mete out punishment to offenders.

Approves Middle West Pooling

Fuel Administrator Harry A. Garfield approves the Coal Shippers Terminal Pool Association establishment of terminal coal pools in the central west to facilitate handling of the coal supply.

IDAHO MINERAL OUTPUT INCREASES OVER $5,000,000

Lead Production in 1917 Shows Increase Over that of 1916.

The value of the gold, silver, copper, lead and zinc mined in Idaho in 1917, according to the statement of C. N. Gerry, of the United States Geological Survey, Department of the Interior, was about $54,000,000, an increase of more than $5,000,000 over the value in 1916. There were decreases in all the five metals except lead, in which there was a slight increase. Idaho was freer from labor troubles than the neighboring States, particularly Montana and Washington. The average prices of silver, copper and lead were unusually good, and every effort was made to ship larger quantities of ore, particularly lead ore. The new lead smelter of the Bunker Hill and Sullivan, near Kellogg, began operations in July, and the lead plant at Northport, Wash., was active during the entire year, treating principally Idaho silver-lead ores. The output of crude ore and concentrate, both lead and zinc, increased from 527,266 tons in 1916 to about 572,000 tons in 1917.

There was a decrease in the gold output from $1,115,810 in 1916 to about $715,000 in 1917, due principally to the fact that the large dredge at Idaho City, Boise county, was idle. Shipments of gold bullion were made from the Marshall Lake district of Idaho county, where the Sherman & Corporal property has become a large gold producer. The lead ore produced contains a small amount of gold, and the copper ore, especially that of the Alder Creek district in Custer county and the Richmond mine in Shoshone county, contains considerable gold. A dredge that had been moved from Alaska to Prichard Creek, near Murray, in Shoshone county, was ready for operation in December.

The production of silver was about 11,773,000 ounces, slightly less than that in 1916, when the State produced 12,300,873 ounces. The price, however, was so much better that the value of the output increased from $8,093,974 to about $9,536,000. The Coeur d'Alene region contributed most of the silver, and the largest producers were the Hercules, Bunker Hill and Sullivan, Morning, Hecla, Caledonia, Tamarack and Custer, Greenhill-Cleveland, Gold Hunter, Stewart, Consolidated Interstate Callahan, and Last Chance. In Boundary county considerable silver is contained in concentrates shipped from the Idaho Continental property. In Lemhi county also silver is produced from lead ore. Increased output was made by the Morning, Hecla, and Bunker Hill properties.

The mine output of copper decreased from 8,478,281 pounds in 1916 to about 6,753,000 pounds in 1917. The value decreased from $2,085,657 to about $1,971,000. The properties at Mackay, in Custer county, and principally the mine of the Empire Copper Company, contributed most of the copper output. Shipments of copper ore were made from the Richmond mine, where the new tramway to Adair was operated. The Caledonia mine, at Wardner, produces ore containing copper as well as silver and lead. Toward the end of the year the plant of the National Copper Company was again operated, and made shipments of concentrates in November and December. Other shipments were also made from the Horst Powell property, north of Kellogg.

The output of lead increased from 375,081,781 pounds in 1916 to about 383,000,000 pounds in 1917, and the value increased from $25,883,643 to about $34,595,000. The principal producers in the Coeur d'Alene region were the Bunker Hill and Sullivan, Hercules, the Federal properties (especially the Morning mine), the Hecla, Greenhill-Cleveland, Caledonia, Success, Gold Hunter, and Consolidated Interstate Callahan. The Jack Waite property became a shipper of lead ore, and the Hypotheek increased its lead output. Having acquired the Frisco mill, the Tamarack and Custer Consolidated made shipments of lead concentrates in the last half of the year. In Lemhi county the Pittsburgh-Idaho, Latest Out, and Gilmore made shipments of lead ore; in Boundary county, the Idaho Continental; at Arco, the Wilbert Mining Company, and near Mackay, the Copper Queen and Homestake. Ore production in Lemhi county was less than in 1916.

As the price of zinc decreased considerably toward the end of the year, the average was only about 9 cents a pound. The State output decreased from 86,505,219 pounds in 1916 to about 80,000,000 pounds of recoverable zinc in 1917. The value was approximately $7,336,000. The output of the main producer, the Consolidated Interstate Callahan, decreased about 20 per cent. This mine averaged over 5,000 tons of ore and concentrates per month, part of which was a lead product. Shipments of zinc ore or concentrates were also made from the Morning, Success, Rex, Highland Surprise, Constitution, Greenhill-Cleveland, Frisco, Black Hawk, Marsh, Douglas, Ray Jefferson, and Nabob. Most of the zinc came from Shoshone county, but the North Star mine, near Hailey, in Blaine county, belonging to the Federal Company, became a producer of zinc concentrates during the year. A great part of the zinc product was sent to the electrolytic plant at Great Falls, Mont., and part of the ore, such as that from the Douglas mine, was concentrated after being shipped.

The dividends from Idaho mining for eleven months amounted to nearly $6,000,000. The principal contributors were the Hecla, Bunker Hill and Sullivan, Caledonia, Hercules, Consolidated Interstate Callahan, Pittsburgh-Idaho, Wilbert, Empire Copper, Big Creek Leasing Company, Douglas, Richmond, Black Hawk Leasing Company, and Tamarack and Custer.

U. S. PLACER MINING LAWS AS APPLIED TO OIL

By Hon. Joseph W. Thompson

Law Examiner of U. S. Bureau of Mines

(Continued from October Issue)

PROOF OF DISCOVERY—PRESUMPTIVE EVIDENCE

It has been sufficiently asserted that proof of profitable or even valuable mineral deposits is not required to establish a discovery sufficient to justify a location. The authorities warrant the proposition that the statute is satisfied when the evidence produces a conclusive presumption of the presence of mineral. The great majority of the adjudicated cases demonstrate that locations have been justified on presumptive proof. In every case it must be admitted there was positive evidence of the presence of some mineral deposit, but in few cases was there positive evidence of a commercially valuable deposit. This, as formerly said, is not required by the statute. Mining locations in countless numbers have been sustained and mineral patents granted, not on positive proof of valuable mineral deposits, but on proof of the presence of some mineral and the additional presumptive evidence that the mineral discovered, taken in connection with the geological formation, the direction of the vein or lode, the presence of other valuable mines in the vicinity and the experience of geologists and miners, together with the locator's willingness to expend money and labor in the development of the property, furnished a sufficient basis for a valid location and to authorize the mineral patent. Mining locations as a rule are validated upon presumptive evidence—the probability of there being a valuable mineral deposit.

Presumptive evidence consists of the proof of "the facts from which, with more or less certainty, according to the experience of mankind of their more or less universal connection, the existence of other facts can be deduced." As otherwise defined, it is the evidence afforded by circumstances from which if unexplained other circumstances or facts may be inferred or presumed. When the conclusion of the existence of a principal fact does not follow necessarily from the facts proven, but is deduced therefrom by probable inference according to the experience of persons taken in connection with the matter to which the principal fact relates, the evidence is said to be presumptive.

Proof of a discovery must be deemed sufficient when the presence of the visualized mineral or oil, taken in connection with the geological formation and the facts and circumstances connected with the particular locality, leads reasonably to the irresistible conclusion that oil exists within a given location. Reasonable probability, and not certainty, of the existence of workable oil is all that is required by the statute as a discovery.

The logic of the argument approaches the point of certainty when taken in connection with the petroleum statute. Any discovery under this statute is sufficient when it shows that the lands are chiefly valuable for the oil content. The degree of the certainty, or even the probability, of the proof of discovery decreases as the value of the land decreases. To assert, or for a court to hold that the same proof of discovery is necessary in lands that vary greatly in value is to fly in the face of this statute. This statute as it now remains, if it means anything, must mean that the proof of discovery, or of the certainty of the presence of oil may be scaled according to the value of the land. The evidence is only required to show that the lands, presumptively, are chiefly valuable for their oil content. The statute was not intended to make discovery, or the presence of oil in the land giving it the chief value, a question of law. Remedial statutes are usually without teeth. This act was evidently intended to run the whole gamut of varying values of oil lands and to make it correspondingly easy to make oil locations on lands of high and low value. The intent of the statute is that a discovery of oil that would justify an oil location on lands of little or no value would not necessarily justify an oil location on lands of considerable value. The application of the argument in this connection is that a seepage might be an all sufficient discovery in lands without value for any purpose and be entirely insufficient in lands valuable for many purposes.

OIL LOCATIONS—RIGHT TO POSSESSION WITHOUT DISCOVERY

The mining statutes in themselves afford practically no protection to oil prospectors. The petroleum statute enacted to encourage oil production proves a mere pretense. So long as discovery of mineral or oil is made a condition precedent to a valid location, oil prospectors are without relief. The statutes as they still exist were intended to apply to mineral substances that are found on or near the surface. The fact that oil deposits are far underground, requiring the work of weeks and months to reach them eliminate these deposits from the protecting arm of the statute. Physical conflicts, miniature wars, and endless litigation have for a score of years been the inheritance of oil locators on the public lands. Three lines in the petroleum act giving sufficient time for discovery and protecting the location meanwhile would have answered the purpose.

Most of the western mining States by local statute have given locators some stated time in which to make discovery, but the time given is too brief for oil discovery. The courts have intervened to give prospectors some measure of relief. The rule, long established, is that a person making a mining location on public lands is not a trespasser, but is in effect the assignee of the United States so long as he complies with the conditions of the statute.[56] A placer location made in compliance with the statute operates to exclude the land embraced therein from other appropriation.[57] The statute gives a locator the right to enjoy the profits of all the surface included within the boundary lines of his claim, and if in possession, no other person has a right to enter and take minerals from the claim.[58] A person in actual possession of a valid location may maintain that possession and exclude every one from trespassing thereon.[59] Every miner upon the public domain is entitled to hold the place in which he is working against all others having no better right, and the actual possession of the first arrival will be protected to the extent needed to give him room to work and to prevent probable breaches of the peace.[60] A prospector on the public mineral domain may protect himself in his pedis possessionis during the time he is searching for minerals, and such possession is good as a possessory title against all the world, except the Government of the United States.[61] The possession of the surface ground of a mining claim is sufficient evidence of title as against any one not showing any higher or better right thereto.[62] Mineral land or a mining claim is not subject to preemption where it is already in the possession of another.[63] A locator of a mine prior to the time he is entitled to a patent has a valid possessory title that will be protected by law.[64]

The cases crystalizing this doctrine of possessory right leave hazy the zone of the initiation of the right, and the extent as applied to the ground possessed. Stated concretely the two unsettled propositions are: (1) The time of the beginning or the point of the initiation of the right. (2) The extent of ground to which the possessory right applied. Whether the right began with the mere surface markings, or with the completed location, including discovery, notices and recording was not made clear. Whether the right, as a matter of space, extended beyond the possessio pedis—the working place, or whether it was co-extensive with the surface of the claim was left also indefinite. The frequent use by the court of the terms "mining claim," and "a valid claim," left the inference that the possessory right applied to a claim where all statutory requirements had been complied with. So the frequent use of the term "possessio pedis" and "working place," seem to point to the fact that the possessory right was limited to the space essential or necessary for the working of the claim and not to its entire surface. More recently the courts of California and Wyoming and some Federal courts, proceeding on equitable principles have taken the haze out of the zone and left its lines clear and well defined. It is comforting to oil locators to know that this clarification has been made in cases involving oil locations. These courts make it clear that the possessory right may begin with the location of the surface lines or by acts that indicate the extent of the claim and without a discovery of mineral. They make equally clear the proposition that the possessory right extends to the entire surface of the claim. The reason given for the rule is that in case of petroleum lands a discovery can not in most cases be made except by considerable labor and expense, covering a long period of time, in sinking the necessary wells.[65] A person in the actual possession of a part of a tract of the public land, with or without a valid location, may maintain such possession by an appropriate action against another who, without color of right or title, and acting as a naked intruder or trespasser, attempts to oust and eject him from the ground in controversy.[66] Lands in the actual occupancy of a locator engaged in exploring it for oil, under an oil placer mining location previously made, is not open to occupation, settlement or selection by another, although the location was not valid as against the United States for want of actual discovery of oil, where the locator in such actual possession was prosecuting the work of exploration with due diligence, and where oil was discovered as a result of such diligent operation. Public lands lawfully occupied by one engaged in making explorations for minerals is not "vacant" within the meaning of the mining statutes.[67] "The location of mineral ground gives to the locator before discovery, and while he complies with the statutes of the United States and the State and local rules and regulations, a valuable right of possession against all intruders."[68] The rule recognized by the courts and applied particularly to oil locations is that discovery need not precede or coexist with the posting of the notice and marking of the boundaries, but discovery may be made subsequently and when made, operates to perfect the location against all the world.[69] It is settled law that while a locator, who has made his location, is engaged in good faith in prospecting for minerals, and has complied with the law as to the expenditure and is in possession, the land is not open for location by others.[70] Actual possession of a mining claim is valid as against a mere intruder, or a person having no higher or better right; and a person in possession of a mining location attempting to discover minerals within its limits has a right to protect his claim from the intrusion of others whether they come upon the land for the purpose of prospecting for minerals or otherwise and he may forcibly expel them or he may resort to law to protect his possession. The original possessor can not be ousted by the mere fact that the second claimant has discovered mineral first.[71] Persons who stake an oil location, put up the usual notices and record the claim, have the right to take actual possession and continue in such possession at least for a reasonable time while diligently at work thereon exploring the ground for the purpose of discovery. The acts of location would indicate not only the extent of surface intended to be appropriated, but the extent of such possession, and the locator will be protected against all forms of forcible, fraudulent, surreptitious or clandestine entries or intrusion by others.[72] A relocation of an oil claim cannot be made as against an original locator actually in the possession of the land and diligently prosecuting the work for the discovery of oil.[73] A locator who has made a location in good faith has a right as against third persons, which is transferable, to be protected against all forms of forcible, fraudulent, surreptitious or clandestine entry or intrusion upon his possession so long as he remains in possession and with diligence prosecutes his work toward a discovery. But actual possession coupled with diligent prosecution of discovery work is essential to his protection. What the locator has under such circumstances is a right to continue in possession undisturbed by any form of hostile or clandestine entry while he is diligently prosecuting his work to a discovery.[74] "If a qualified person peacefully enters upon public lands of the United States for the purpose of discovering oil or other valuable mineral deposits therein and such land is at the time unoccupied and there is at the time no valid mineral location or lawful entry thereon, under the land laws of the United States, such person has a right to continue in possession so long as he continues to occupy the same to the exclusion of others, and diligently and in good faith prosecutes thereon the work of endeavoring to discover such mineral therein.[75]

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[56] Chapman v. Toy Long, 5 Federal Cas. 497, 4 Sawyer 28; United States v. Nelson, 27 Federal Cas. 86; Shafer v. Constaus, 3 Mont. 369, p. 371.

[57] Pirn Oil Co., In re, 16 L. D. 117, p. 119.

[58] Fuller v. Harris, 29 Federal 814, p. 819.

[59] Del Monte Mining Co. v. Last Chance Mining Co., 171 U. S. 55, p. 83.

[60] Hanson v. Craig, 170 Federal 62, p. 65; Zollers v. Evans, 5 Federal 172; Erhardt v. Boaro, 8 Federal 692.

[61] Crossman v. Pendery, 8 Federal 693, p. 694.

[62] Carson City Gold Min. Co. v. North Star Min. Co., 83 Fed. 658, p. 668; Campbell v. Rankin, 99 U. S. 261, p. 264; Patchan v. Keeley, 19 Nev. 404, p. 413.

[63] Field v. Grey, 1 Ariz. 404, p. 406.

[64] Herron v. Eagle Min. Co., 37 Ore. 155, p. 157.

[65] Weed v. Snook, 144 Cal. 439, p. 444.

[66] Meydenbauer v. Steven, 78 Federal 787, p. 791.

[67] Cosmos Exploration Co. v. Gray Eagle Oil Co., 112 Federal 4, p. 15; Kern Oil Co. v. Clarke, 30 L. D. 550, p. 567.

POSSESSION FOR PERIOD OF STATUTE OF LIMITATIONS—RIGHT TO PATENT

Section *2332*[76] provides that persons who have held and worked mining claims for a period equal to the time prescribed by the local statutes of limitation for mining claims, shall, on proof of such facts be entitled to a patent in the absence of any adverse claim. The purpose of this section was to loosen the burden of proving the location and transfers of old mining claims where the record title might be lost.[77] All that is required under this section to establish a possessory title is evidence sufficient to show that the claim was so held and worked for the time prescribed and record proof even if such is in existence is not required.[78] It is not necessary for an applicant for patent to show the initiation of his right, but proof of possession and continuous working of the claim for a period equal to the local statute of limitations is sufficient.[79] This section was intended to meet cases where applicants for patent have been in possession of their claims for the period of the statute of limitations, but were unable to make full proof of their right to patent as required by the previous provisions of the law; and to excuse their defects in title the Congress determined that the Land Office should pass over such defects, and give them their patents, provided no one appears to contest the application. The Land Office in the construction of this section has said: "It is believed that the main purpose of section *2332* was to declare that evidence of the holding and working of a mining claim when equal to the time prescribed by the local statute of limitations for mining claims, shall be considered as sufficiently establishing the location of the claim and the applicant's rights thereunder.[80] The section was enacted to prevent an applicant from failing to obtain his patent simply for defects in his claim when he had held a long and undisputed possession and no one had opposed him. The Land Office, under such circumstances, was thus authorized to omit some of the strict proof required from an applicant in consideration of there being no opposition to the application.[81] Where the validity of a location had been unchallenged for more than five years and up to the time of the commencement of the action, a federal court held that under such circumstances the certificate of location created a presumption of discovery of mineral and of a valid location.[82] Where a local statute provided for location certificates to the discoverer of a lode and what should be done by the locator before filing his location certificate and where such a location certificate had been filed and the claim has been of long standing and had been held unchallenged for years and work of more or less importance had been prosecuted at various points on the claim before the controversy, a federal court after stating such facts, said: "If after all this the court should not tell the jury that every reasonable presumption should be indulged in favor of the discovery of a lode by the miner, it is difficult to conceive of a state of facts where such intendment should arise."[83] In a case involving the right to a mining claim under this section, the court on the trial instructed the jury to the effect that a person who had not located mineral lands in the mode prescribed by law and according to the custom of miners might acquire a right thereto by holding and working the same for the period required by the statute of limitations and that a patent should issue for the claim in the absence of an adverse claim. The court on appeal confirmed the instruction and stated that where the possession was continued for five years before the adverse right existed, it was equivalent to a location under the law of Congress.[84] In another case involving the possession of a mining claim under color of title, the court said: "A presumption is indulged that the location was regularly made in the first place, and the party in possession is allowed to remain so long as he shall comply with the conditions on which he holds the estate."[85] The rule is established that if a plaintiff is unable to prove a valid location in accordance with the mining laws in force, yet if he show actual possession under color of title at the time of another's entry, he may recover in ejectment.[86]

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[68] Rooney v. Barnette, 200 Federal 700, p. 710.

[69] Miller v. Chrisman, 140 Cal. 440, p. 447.

[70] Weed v. Snook, 144 Cal. 439, p. 444.

[71] Whiting v. Straup, 17 Wyoming 1, p. 4, 95 Pac. 849, 129 Am. St. 1093.

[72] Phillips v. Brill, 17 Wyoming 26, p. 38, 95 Pac. 856; Miller v. Chrisman, 140 Cal. 440, p. 447; Weed v. Snook, 144 Cal. 439, p. 443, 77 Pac. 1023; New England & Coalinga Oil Co. v. Congdon, 152 Cal. 211, p. 214; Phillips v. Smith, 11 Ariz. 309, p. 314; Field v. Grey, 1 Ariz. 404, p. 407; Wilson v. Triumphant Consol. Coal Min. Co., 19 Utah 66, p. 74

[73] Merced Oil Mining Co. v. Patterson, 153 Cal. 624, p. 626, 95 Pac. 90.

[74] Borgwardt v. McKittrick Oil Co., 164 Cal. 650, p. 658, 130 Pac. 417.

[75] Smith v. Union Oil Co., 166 Cal. 217, p. 219.

[76] United States Revised Statutes.

[77] Upton v. Santa Rita Mining Co., 14 N. Mex. 96, p. 123; Belk v. Meagher, 104 U. S. 279, p. 286; Blackburn v. Portland Gold Mining Co., 175 U. S. 571, p. 587; Humphreys v. Idaho Gold Mines Dev. Co., 21 Idaho 126, p. 140; Stewart v. Rees, 21 L. D. 446; Cain v. Addenda Mining Co., 24 L. D. 18, p. 21; Barklage v. Russell, 29 L. D. 401, p. 405; Brady v. Harris, 29 L. D. 426, p. 432; Gaffney v. Turner, 29 L. D. 470, p. 473.

[78] Capital No. 5 Placer Mining Claim, In re, 34 L. D. 462.

[79] Hickey v. Anaconda Copper Mining Co., 33 Mont. 46, p. 65.

This section is not entirely clear as to the precise proof necessary in addition to proof of the adverse possession. The words "claims" and "mining claims" are used and the inference might be that by the use of these terms proof of the possession of a mining claim as such would be required, and as there can be no such thing as a mining claim under these statutes without a discovery and a location, that proof of these facts would be essential. This view has been taken by one court only. The Supreme Court of Idaho is the only court that has said or intimated that this section requires in addition to the proof of possession for the statutory period that it is necessary for the applicant "to have made a mineral discovery" and to have performed the annual assessment work, and to have had the boundaries of his claim so marked and indicated so as to afford actual evidence of the extent and boundaries of his claim and possession.[87] The folly of this view is seen in the purpose of the statute. The required proof as indicated by this holding effectually emasculates the statute. Its very purpose is to dispense with proof of these facts. The section in its requirements in effect begins where location and discovery cease. The well-known rule is that the performance of the annual assessment work is the condition for continued possession; and this section requires proof of this fact as the essential condition on which the adverse possession must rest. Proof of the nature and extent of the possession is required by regulations but departmental regulations can not be in excess of the statutory requirements. Proof of citizenship is required as the persons holding such claims are the persons qualified as prescribed in other sections of the statute.

The cases cited conclusively show that the continued possession and the performance of the annual assessment work implies the performance of the conditions necessary to a valid location and on proof of possession and performance of assessment work a conclusive presumption is created that a valid mining location was initiated. Emphasis is made in at least one case on the fact that a local statute of the state required the making and recording of a location certificate and a valid location including discovery was required before such a certificate could be recorded. But the existence of such a certificate could not necessarily supplement the proof required under this section for the reason that record evidence of a claim, even if it exists, can not be required, nor can the applicant be required to give any reason for not producing it.[88] That this section applies to oil locations is assumed for the reason that it embraces both placer and lode locations and an oil location is within the law a placer claim.

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[80] Barklage v. Russell, 29 L. D. 401, p. 406.

[81] McCowan v. Maclay, 16 Mont. 234, p. 241.

[82] Cheesman v. Shreeve, 40 Federal 791, Vogel v. Warsing, 146 Federal 949, p. 951.

[83] Cheesman v. Hart, 42 Federal 98, p. 102.

[84] Altoona Quick Silver Min. Co. v. Integral Quick Silver Min. Co., 114 Cal. 100, p. 105; Upton v. Santa Rita Mining Co., 14 N. Mex. 96, p. 123; Humphreys v. Idaho Gold Mines Dev. Co., 21 Idaho 126, p. 138; Horst v. Shea, 23 Mont. 390, p. 397; Belk v. Meagher, 104 U. S. 279.

[85] Harris v. Equator Min. & Smelting Co., 8 Federal 863, p. 866; Cleary v. Skiffich, 28 Colo. 362, p. 365; Upton v. Santa Rita Mining Co., 14 N. Mex. 96, p. 123.

[86] Lebanon Mining Co. v. Consolidated Republican Mining Co., 6 Colo. 371, p. 381.

[87] Humphreys v. Idaho Gold Mines Dev. Co., 21 Idaho 126, p. 140.

[88] Capital No. 5, Placer Mine Claim, In re, 34 L. D. 462, p. 463.

The conclusion is that the locator of an oil claim who has held and occupied the same and performed the annual assessment work for the period of time equal to the period of the statute of limitations of the state in which the claim is situated, has not only a complete equitable title, but one to which he is on proof of the fact of his citizenship and of possession and performance of the assessment work for the required time, and of the required expenditure on behalf of the claim, entitled to a patent from the Government.

(*To be continued.*)

PRICE OF OIL TO BE FIXED, MANY THINK

Recent Advance in Pennsylvania Grade Crude Creates Unfavorable Impression.

That the price of crude oil is to be fixed, despite the large volume of advice to the contrary, is a belief expressed in certain well-informed quarters here. The idea being considered is that a tentative maximum price be fixed which will not exceed prices as of December 1.

It is known that the latest advance in the price of Pennsylvania grade crude oil has created a very unfavorable impression among those charged with safeguarding the Government's and the public's interest. Many are of the opinion that the increase was unnecessary and unjustifiable. The rise amounted to 25 cents per barrel, making the price $3.75. Some declare that Pennsylvania crude producers are holding their credit balances for $5 crude. At any rate, the advance is likely to lead to higher prices all along the line. Some fear that it may be the opening wedge to a runaway market.

The principal argument which has been advanced against the fixing of a maximum price of crude oil is that it would tend to discourage prospecting and maximum production. To meet this argument, the opinions of thousands of oil men have been secured and are matters of record. The great majority of them admit that the present price of crude oil is sufficiently high to yield large returns on investment, and as a consequence are amply high to stimulate production. The price is not a limiting factor, it is declared. The difficulties of transportation and the scarcity of supplies and materials are responsible for such limitation as exists either in production or in wild-catting.

Eventually the price probably will be fixed at a certain margin above the cost of production. As yet the cost of production has not been ascertained with sufficient definiteness to permit of its use as a basis for price fixing. By taking the prices of December 1, which would antedate the rise in Pennsylvania grade crude, it is believed that no injustice will be done, and a basis will be set which will establish the cost of crude to the refiner. Since 88 per cent of the entire cost of refined oil is represented by the cost of crude oil, it would simplify the regulation of all refinery products.

COAL PRODUCTION IN 1917 WAS 544,142,000 TONS

December Output Lowest Since April, but Year's Showing is 8 Per Cent Better Than 1916.

A preliminary estimate by the Geological Survey places the December production of bituminous coal at 42,050,000 tons, the lowest recorded since April, 1917. On this basis, the entire 1917 production should be approximately 544,142,000 tons, representing an increase over 1916 of 8.3 per cent.

In the five working days of Christmas week the soft-coal mines are estimated to have produced 8,961,000 net tons, an average per working day of 1,793,000 tons. The recovery from the extraordinary depression of mid-December continues, but the rate of production has not yet attained the mark set in November. The increase was effected in spite of continued adverse weather conditions.

Reports from almost every district indicate some improvement over the extraordinary depression of the week of December 15. For the country as a whole losses due to all causes amounted to 31.9 per cent of the full-time capacity, as compared with 42.3 per cent during the preceding week. Improvement was reported in car supply, losses due to that factor declining from 30.8 to 24.8 per cent. Losses attributed to labor shortage and to mine disability returned to normal.

Recovery was most rapid in Illinois, Indiana, and Ohio. In the last mentioned State losses attributed to car shortage fell from 57.1 to 38.8 per cent of full-time output. Western Pennsylvania and the Irwin gas field also reported decided improvement. In central Pennsylvania, however, conditions underwent little change. The Junior Philippi, Winding Gulf, and Fairmont regions of West Virginia, and the southern Appalachian district reported increased losses due to car shortage. From the remaining districts of West Virginia and Kentucky a slight improvement was reported.

The production of Alabama was adversely affected by strikes and labor shortage. Losses due to these causes amounted to 9.1 per cent.

The Southwestern region, Missouri, Kansas, Oklahoma, Arkansas, and the Rocky Mountain fields, Montana, Wyoming, Colorado, and New Mexico also reported substantial recovery from the depression of the week before.

GARFIELD STATES POSITION ON "NON-ESSENTIAL" INDUSTRIES

Dr. H. A. Garfield, United States Fuel Administrator, speaking at the meeting of the chairmen of hundreds of American industries assembled in Washington, said in part:

"The United States Fuel Administration approaches the question before us from its own particular point of view, and yet I hope the Fuel Administration does not in this case, and never will in any other, allow itself to assume the position of choosing between various enterprises in our country, each of which is contributing in its own way to the welfare of the successful prosecution of the war at high tension.

"When the question was first presented to me, however, I took it, Mr. Chairman, that you desired me to speak on the subject of so-called non-essentials. It presented itself to me in this way: There are two ways of saving ourselves in this time of necessity. One is to cut off from the list of hundreds of industries the things which are least essential. The other is to prefer those enterprises which are most essential.

"One may take either end of the program to reason about it, or he may take both ends. From my angle of approach .the preferred list consists of enterprises most likely to contribute immediately to the war. Therefore, it is impossible to curtail fuel for them. But that did not appear to answer the question wholly. If the war continues very long we may have to cut off fuel from some enterprises that are less essential to the prosecution of the war.

"A list was made up by different people interested in different ways; and when we began analyzing that list, we did not need to spend more than one evening on it to be sure that any one of the industries if cut off from fuel supply would carry a much further injury to the public than we could well reckon.

"There was one industry in particular which manufactured apparently non-essential things, and it was suggested that we withhold the fuel supply from this. But on investigation it was found that this would injure a vast number of people."

Speaking on the same subject, P. B. Noyes, Chief of the Conservation Division, United States Fuel Administration, said:

"Arbitrary government limitations on industry would necessarily be clumsy and somewhat discriminating, and must, therefore, be employed only as a last resort. How, then, shall we get results? For get them we must, and that quickly.

"I propose to you a plan which already promises results through the voluntary cooperating of leaders in important industries. It consists of the voluntary limitation of the least essential portion of each industry. This plan contemplates an immediate survey by the leaders in each national industry of the relative value to them and to the public of the different articles and lines of merchandise produced; and an organized discontinuance during the war of that portion which can best be spared.

"Enough has already been accomplished in this direction, to show that results commensurate with our necessities can confidently be expected if they will all cooperate.

"In one case over 75 per cent of an important industry has offered curtailment which will save 500,000 tons of coal in 1918 and remove 18,000 cars of merchandise freight from the railway problem.

"Another industry has sent representatives to Washington who have offered a reduction in output which would add over 900,000 tons to our national coal pile.

"The proposed plan means that men representing all of the major part of each industry must come to Washington and offer to discontinue the least essential part of their normal output. Such discontinuance should be made 100 per cent effective by government order. This method of obtaining necessary reductions may be called limitation by agreement.

"There is not today room in the United States for fighting a war like this one and at the same time supporting a business boom. We have neither the men, materials nor equipment for both.

"To maintain a high degree of business activity and at the same time attempt to provide the enormous quantity of materials without which this war would be lost, would overtax the railroads, the mines, and finally the man power of the country. In this situation every one of you would vote to give war necessities the right of way.

"Industry must shrink to whatever extent is necessary to give elbow room, as it were, for winning the war. The great problem before us is how to get this elbow room with the least possible dislocation of non-war industry."

Domestic Consumers Come First

Fuel Administrator Garfield conferred on William K. Prudden, State Administrator for Michigan, authority to close amusement resorts, and industrial plants if such action is necessary to furnish coal for domestic consumers. Mr. Prudden telegraphed Fuel Administrator Garfield, urgently recommending that all non-essential users of coal be closed during the holidays. He pointed out that such action would relieve the coal needs of domestic consumers and would tend to relieve railroad congestion as well.

The United States Fuel Administrator replying to Mr. Prudden said:

"You are hereby authorized to exercise your discretion. If you decide it necessary in order to meet domestic consumers' needs, issue order closing some or all industrial plants, theaters, halls and places of amusement during the holidays."

This action of the United States Fuel Administrator follows the general policy of giving local fuel administrators ample authority to handle local fuel emergencies as they may develop.

LABOR'S INFLUENCE ON THE PRICE OF COPPER

By J. E. Curry,
Secy., Arizona Chapter, American Mining Congress

Bisbee, Ariz., Jan. 1.—Information from the East indicates confidence that the War Industries Board will not lower the price of copper. There is some feeling that an advance may be made to 25 cents. In the main, however, opinion seems to be that the price will be left where it is.

It is now known that the Board contemplated reduction to 20 cents. Introduction by this Chapter of the effect that such course would have upon the production of small operators assisted greatly in making the latter an important factor in the consideration of the Board, and in all accounts of the mediations of the Board the small operator is being prominently mentioned.

A new phase has developed in the report of a desire upon the part of the Board to make the price agreement term two months instead of four. Combating this the producers have asked a five months' period It is considered probable that a compromise will be reached on renewal of the four-month agreement.

There is intimation that labor pressure for increase in wages has a part in the two month proposal. The Board does not want to increase the price of copper above the present level, but is not yet satisfied, it is said, that it can call for higher wages without advancing the price even above 25 cents. The two-month proposal is looked upon by some as an expedient that will satisfy labor that investigation is being made and that higher wage recommendations will not be long delayed at least in point of discussion.

OIL LAND LEASING BILL PASSES SENATE BY VOTE OF 37 TO 32

The Walsh-Pittman Oil and Coal Land Leasing bill was passed by the Senate January 7 by a vote of 37 to 32. It now goes to the House.

The bill has been pending in the Senate four years. Its passage at this session was made possible by an agreement to eliminate from its provisions the naval oil reserves, which was urged by the Navy Department. A separate bill providing for the operation of these reserves by the Government, the leases of the present claimants being obtained either through condemnation proceedings or by direct purchase, will be introduced as soon as approved by President Wilson.

As finally passed, the bill provides for the general leasing of coal, phosphate, oil, gas, and sodium lands by the Secretary of the Interior, with royalties to be paid to the Government, and for purchase of the lands by lessees under certain conditions.

Niagara Falls Plants Taken Over

Under authority of the President, the electric power produced, imported, and distributed by the Niagara Falls Power Company, the Hydraulic Power Company of Niagara Falls, and the Cliff Electrical Distributing Company has been requisitioned by the Government. This step was taken to assure the adequate supply of electric power for the establishments engaged in war work at Niagara Falls and Buffalo.

No Necessity for Labor Shortage

Editor Mining Congress Journal,
Washington, D. C.

A careful study of the labor situation in the bituminous coal fields, and putting into practice the results of this research -convinced me and a number of coal operators who followed my advice—that there is no need to suffer from the much-heralded labor shortage.

First of all, there are at least 25,000 foreign-born, experienced miners, who, way back in 1913 and 1914, when wages in coal mines did not offer a comfortable living, turned to more remunerative occupations, such as manufacture of munitions machine shops, steel mills, etc., and last, but not least, the manufacture of non-essentials.

Once a miner—always a miner. These men—especially since wages in the coal mines have advanced to such dimensions that thrifty miners not only enjoy undreamed of comforts and prosperity, but besides are in a position to lay aside a nice little bank roll for rainy days—naturally are desirous to return to mine work.

EASY TO SECURE MINES

Ninety per cent of the mine workers in the U. S. are foreigners, and 90 per cent of these men depend for their news on the publications printed in their own language. Therefore the operator who gave his mine—and the fact that he could employ 50 or 300 miners—the necessary publicity, had his labor wants filled and is in much better shape than his neighbor who omitted to do so.

Of course, there are mines where certain conditions, such as low wages, poor safety conditions, badly kept old houses, or the extreme thinness of the vein (24 to 35 inches), make it extremely difficult to attract new labor, but even there the situation can be relieved to some extent.

Early in July, I approached Mr. J. D. Morrow, secretary of the National Coal Operators Association, with a plan of publicity, the chief object of which was to instill in the foreign-born miner a sense of patriotism and loyalty towards this, his adopted country, instruct him in his duties as a citizen of the U. S., and, most of all, that by doing his bit by working eight hours a day, six days a week, and helping the cause of democracy to victory, he ultimately is helping his native country to be freed from the yoke and slavery of militarism and autocracy.

Three months later, at the Pittsburgh convention of the National Coal Operators Association, a publicity campaign along these lines was advocated but nothing has been done up to the present date.

FOREIGN-BORN MINERS LOYAL TO THE UNITED STATES

The accusation that Austro-Hungarian, Slavish, Croation, Polish, etc., miners are listening to German propaganda, which instructs them to produce as little coal as possible, can easily be refuted by looking over the books of almost any coal operator, and it will be seen that men of these nationalities almost invariably lead their fellow miners in the amount of money earned, and thereby naturally in the amount of coal produced.

These men are loyal, and if properly instructed through the publications they read will only be more so.

Andrew M. Springer.

Pittsburgh, Pa., Dec. 15, 1917,
4 Smithfield Street.

Pool Plan Working Well

The terminal pool plan of handling coal in Ohio and Michigan is working well and good progress is being made in clearing up the congestion in traffic for those states and adjacent territory according to F. C. Baird who came to Washington today to make an official report of conditions.

CURRENT FEDERAL LEGISLATION

WATER POWER ON NAVIGABLE STREAMS

What is familiarly known as the Shields water power bill, S. 1419, passed the Senate December 4, and is now before the House. The Shields bill is practically the same as the measure passed by the Senate during the last Congress, the former bill having been so amended in the House that the Conference Committee failed to agree upon it.

The bill provides primarily for the utilization and development of water power on navigable streams by means of private capital. The aim of the authors is to encourage investment in such improvements. The water power projects are to be constructed by permit from the Secretary of War, and the improvements must be made and maintained in accordance with plans approved by the Government.

In presenting the bill, Senator Shields stated that the prime reasons which have prevented the development of water power energy in the United States are found in the restricted policy of the present statutes.

The permit for such improvement is for fifty years, and it may be extended at the pleasure of the Secretary of War or the property may be taken over by the United States and transferred to another grantee. The charges and rentals imposed are to be expended in the improvement of navigation along the stream or streams in which the dams are constructed. All controversies between the grantee and the Government are made subject to judicial investigation and determination. Preference is given in awarding permits to municipalaties or other political subdivisions and public utility companies where the power developed is to be used for municipal or public utility purposes. The fixing of rates is subject to State laws and regulations, except where the power enters into interstate commerce, in which case the Interstate Commerce Commission is given jurisdiction. Plants and improvements are subject to taxation by the States in which they exist.

Provisions against power monopoly or conspiracy in restraint of trade are contained in the bill.

Nothing in the act shall be construed to interfere with the sovereign States over the navigable waters within their boundaries and the property rights they hold in trust for their people, including the right to grant permits for the use of the waters and water power thereof, and to require the payment to the States of such charges and royalties as may be authorized by the constitutions and laws of the respective States.

WATER POWER ON PUBLIC LANDS

Mr. Ferris introduced, December 7, H. R. 7227, a bill to provide for the development of water power on the public lands and lands in relation thereto. This bill refers to the use of public lands abutting streams of water as sites for power plant. The Government holds that the riparian rights adjoining streams which traverse the public lands are subject to the jurisdiction of Congress.

The bill provides for leases under the authority of the Secretary of the Interior for no longer period than fifty years. It provides that the Government may take over the power properties at the expiration of the leases by paying the cost of rights-of-way water rights, used in connection therewith. and the reasonable value of all other property taken over, including structures and fixtures, such reasonable value to be determined by mutual agreement between the Secretary of the Interior and the lessee or by the United States district court in the event of disagreement.

The bill provides that in the case the Government does not extend the lease at the expiration of the fifty years or does not take over the same, the properties of the original lessee may be leased anew upon such terms as the laws then existent may authorize, the new lessee to pay for such investment as the original lessee has made thereon. The Secretary of the Interior is authorized to specify in the lease and to collect charges or rentals where the power is generated in whole or in part on lands belonging to the United States, and the proceeds shall be appropriated as a part of the reclamation fund created by act of Congress approved June 17, 1902, known as the reclamation act. The bill provides for the regulation of rates and the issuance of stocks and bonds under the authority of State commissions, but where any such commission does not exist this authority shall be vested in the Secretary of the Interior, or in such a body as may be authorized by Federal statute until the State shall provide a commission.

The Secretary of the Interior is authorized to examine the books and accounts of lessees and to require them to submit statements Any lease may be forfeited by appropriate proceedings in the United States district court if the lessee fails to comply with the terms of this act.

OKLAHOMA INDIAN LANDS

The House of Representatives, during the closing days of the December sitting, passed H. R. 195, providing for the sale of coal and asphalt deposits in the segregated mineral land in the Choctaw and Chickasaw nations, Oklahoma. The Secretary of the Interior is authorized to make appraisals by a board of appraisers consisting of three members to be appointed by the President, one upon the recommendation of the Secretary of the Interior, and the remaining two upon the recommendations, respectively, of the principal chiefs of the Choctaw and Chickasaw nations.

The bill provides for the thorough advertising of the sale, and that 20 per cent of the purchase price shall be paid in cash, the balance in four annual equal payments from the date of sale with 5 per cent interest on deferred payments. In case of forfeiture the Secretary of the Interior shall advertise the lands to be sold to the highest bidder at public auction.

Such deposits on leased lands shall be sold subject to all rights of the lessee, and any person acquiring said deposits shall take the same subject to said rights and acquire same under the express understanding that the Department of the Interior will cancel and withdraw all rules and regulations and relinquish all authority heretofore exercised over the operation of said mines by reason of the Indian ownership of said property.

The lessee shall have the preferential right, if exercised within 90 days after the appraisement, to purchase at the appraised value any or all of the appraised lands lying within such lease held by him, and shall have the preferential right to purchase the coal deposits embraced in any lease held by him by taking same at the highest price offered by any responsible bidder at public auction. If any lessee becomes the purchaser of any coal deposits or any undeveloped lands owned by him, one-half of the advance royalties paid by him shall be credited to the purchase price thereof. The Secretary of the Interior will establish an office at McAlester, Pittsburgh County, Okla.

ANNUAL ASSESSMENTS

S. J. Res. 78, providing for the suspension of annual assessment requirements on mining claims during 1917 and 1918, passed both Houses during the latter part of September and went to conference. The Conference Committee changes were accepted, the bill was finally passed and was approved October 5. The bill provides that every claimant of a mining claim in order to obtain the benefit of the resolution shall file for record, in the appropriate place, a notice of his desire to hold his mining claim under this resolution. The resolution does not apply to oil placer locations.

NEW BILLS

Since the opening of Congress to December 18, 1917, 3,307 bills were introduced in the Senate, and 7,993 bills in the House. Late bills, not previously reported, have been introduced as follows:

S. 3233 by Mr. Borah (also introduced in the House as H. R. 7236 by Mr. Smith, of Idaho), seeks to amend the act of May 11, 1898, entitled "An act to permit the use of the right of way through the public lands for tramroads, canals, and reservoirs, and for other purposes." The following is the proposed amendment: "That the Secretary of the Interior be, and hereby is, authorized and empowered, under general regulations to be fixed by him, to permit the use by any citizen or association of citizens of the United States, for the purpose of furnishing water for domestic, irrigation, public, and for other beneficial uses, of the rihgt of way through the public lands of the United States for canals and reservoirs to the extent of the ground occupied by the water of such canals or reservoirs, and fifty feet on each side of the marginal lmiits thereof, and, in addition thereto, at locations to be determined by the Secretary of the Interior, five acres of ground of the unoccupied public lands to be used for the erection thereon of dwellings and outbuildings for the convenience of ditch riders and other employees engaged in the management of said canals and reservoirs."

S. 3220, by Mr. Gronna, seeks to confer upon the Bureau of Mines the authority to investigate lignite coals and to determine the practicability of their utilization as a fuel, and in producing commercial products, such as ammonia, tar, gas, etc. An appropriation of $100,000 is called for.

S. J. Res. 108, by Senator Shafroth, asks that the President be authorized to appoint a commission of three members to visit Allied and Neutral nations of the world with a view to making an international agreement as to the coinage of silver, subject to approval by Congress. The sum of $100,000 is proposed as an appropriation. The preamble to the resolution is as follows:

"Whereas the settlement of balances of trade with silver-using countries threatens the depletion of our stock of gold, although such countries prefer that such balances should be paid in silver; and

"Whereas to relieve such condition it is necessary that the production of silver be increased; and

"Whereas the enormous expansion in world credits during the past three years necessitates the enlargement of the base upon which such credits are founded: Therefore be it Resolved, etc."

S. Res. 163, By Senator Lodge, asks that an inquiry be made by the Senate Committee on Manufactures as to the causes of the shortage of sugar and coal.

H. R. 7235, by Mr. Foster, provides that the Bureau of Mines shall recommend the purchasing of fuels by the executive departments, excepting the Navy, examine fuel specifications and the fuel-burning equipment of such departments.

H. J. Res. 172, by Mr. Sabath, aims at the taking over by the United States Government of railways and coal mines during the period of the war. The resolution was introduced December 5, and since that date the management of the railroads has been assumed by the President. The resolution seeks to provide that the Interstate Commerce Commission shall be empowered to take control of both roads and mines. Regulation of wages is proposed, and the management is to be lodged in the hands of the boards. The ultimate Government ownership of both is contemplated.

H. J. Res. 202, by Mr. Emerson, asks for the appropriation of $10,000,000 to build freight cars to handle foods and fuel. This subject is likewise covered by the action of the President in taking over the railways.

ALASKA'S MINERAL OUTPUT SLIGHTLY LESS THAN IN 1916

In 1917 Alaska produced minerals valued at $41,760,000. These are the advance figures issued by the United States Geological Survey, Department of the Interior, and are based on estimates made by G. C. Martin. The value of the mineral output of Alaska in 1917, although about $6,870,000 less than that in 1916, was greater than that in any other year. The most valuable mineral product in 1917 was copper, of which 88,200,000 pounds, valued at $24,000,000, was produced. This is less than the output of 1916, which was 119,600,000 pounds, valued at $29,480,000, but is greater than that of any other year. The reduction is due largely to labor troubles, and is not necessarily permanent. The gold produced in 1917, $15,450,000, of which $9,850,000 was derived from placer mines, was also less than that produced in 1916, which was $17,240,000, and is the smallest since 1904. The reduction was due chiefly to curtailment of operations because of the scarcity of labor and the high cost of materials, but in part to the disaster at the Treadwell mines and the depletion of some of the richer placers.

During the year Alaska also produced silver valued at $1,050 000, coal valued at $300,000, lead valued at $160,000, tin valued at $160,000, antimony valued at $40,000, and tungsten, chromium, petroleum, marble, gypsum, graphite, and platinum valued at $600,000.

During thirty-three years of mining Alaska has produced more than $391,000,000 in gold, silver, copper, and other minerals. Of this amount $293,000,000 represents the value of the gold and $88,200,000 that of the copper.

PRODUCTION IN 1918 EXPECTED TO SET A NEW HIGH RECORD

Coal producers expect the production in 1918 to set another new high record, according to the National Coal Association. They understand that the war needs of the country will require even more coal than has been produced in 1917. They are entering upon the new year with a determination to produce the tonnage required.

The most serious obstacle which they now foresee is a shortage of labor at the mines. The short car supply during the last two or three months has so restricted operations at many mines that thousands of men have sought employment elsewhere where working conditions were more regular.

PERSONALS

George M. White, Consulting Engineer for Arizona Mines Reduction Co., Skull Valley, Ariz., was in Washington, December 13. Mr. White has been making a tour of some of the central and eastern cities. His mine is one of the largest producers of molybdenite in this country.

H. W. Hardinge, Consulting Engineer, 120 Broadway, New York, was in Washington, December 19, to consult with various government officials.

G. W. Tower, Mining Engineer, of New Rochelle, N. Y., spent some time in Washington in December.

Frederick W. Foote, who has recently been operating tungsten mines in Portugal, and who since then has been studying tungsten problems in the United States, was in Washington in December.

J. E. Spun in now making his home at 1751 Park Road, N. W., Washington, D. C.

Wm. Barrett Ridgely has forwarded to the U. S. National Museum a piece of ore weighing about 150 pounds that contains a large percentage of the tungsten sulphide, tungstenite, recently identified simultaneously by R. C. Wells of the U. S. Geological Survey and K. D. Kuhre of Salt Lake City, Utah. The specimen is from the Emma Mine at Alta, in Little Cottonwood Canyon, Utah. The mineral is associated with silver bearing galena, and has so far not been found elsewhere.

H. C. Dudley, of Duluth, Minn., has recently been appointed a captain in the Engineer Offisers' Reserve Corps, and has been assigned to the 36th Regiment of Engineers. He is closing his office in the Lonsdale Building, Duluth.

Companies Consolidated

An agreement for consolidation of the Westmoreland Coal Company, the Penn Gas Coal Company and the Manor Gas Coal Company, dated December 4, has been filed. The name of the merged company will be the Westmoreland Coal Company, and its officers will be: President, S. Pemberton Hutchinson; vice-president, George McCall; secretary, Howard R. Yearsley; treasurer, Herman Roll. The company has been recapitalized at $10,000,000. The Westmoreland Coal Company is a member of the American Mining Congress, and Mr. Hutchinson is one of the hearty supporters of its work.

New Du Pont Book Out

Another Du Pont Products Book has just been issued by E. I. Du Pont de Nemours & Co. and its associates, Du Pont Fabrikoid Co., Du Pont Chemical Works, The Arlington Works and Harrisons, Inc. It lists all the products of the above concerns and describes their uses as well as naming those who use them.

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THE MINING CONGRESS JOURNAL

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THE SILVER SITUATION

That price is the ultimate controlling influence in production is well illustrated by its effect upon the production of silver.

When silver and gold were maintained at a parity, aside from temporary fluctuations, the silver production of the world as compared with gold was maintained as a whole at a ratio of about fifteen and one-half to one.

After the demonetization of silver, its production rapidly decreased until it reached a point of 7½ ounces of silver to 1 of gold. During recent months the price has turned toward higher levels as the governments of the world have found it necessary to restrict the exportation of gold.

At this time our own Government needs large quantities of metallic money with which to settle its foreign trade balances with countries which are willing to accept silver. The present production of silver is so small that no supply is available to meet these requirements except as the reserve in the United States Treasury, held for the security of its silver certificates, shall be withdrawn.

This silver cannot be withdrawn except by act of Congress, and a plan is being considered by which the Government shall purchase for future delivery enough silver to replace the amount withdrawn from the Treasury and that the silver certificates temporarily withdrawn from circulation shall be again reissued whenever the silver is delivered to the Government to replace the silver withdrawn from the Treasury reserve.

Whether these purchases are to be made at a fixed price or whether in the open market is one of the difficult questions for solution. Silver producers would prefer to sell in the open market than to agree with the Government on a fixed price. It has been demonstrated that the cost of producing silver is now almost double what it was a few years ago, and in consequence that even a price equaling the rupee coinage value would not be sufficient to stimulate the increased production which will be essential if the Government's needs are to be met.

It is believed that the price of silver for manufacturing purposes and in the arts would quickly advance to a point in excess of its coinage value in the Indian rupee if it were not for the embargo upon exportation. It is also believed that the need of silver as money in the silver-using countries will create such a demand that its price will not again fall to the average of recent years. Altogether, the question is one of intense public concern, and for the first time in many years interest in this question is being aroused by people who are not producers of silver.

THE WAR EXCESS PROFITS TAX

In the January issue we presented the suggestions which had been made to the War Excess Profits Tax Advisory Committee of the Treasury Department to be considered in framing the regulations under which the revenue law shall be applied, and also an amendment to the law which was proposed to eliminate defects which it was thought could not be covered by regulations. A large number of conferences have since been held by the committee representing the mining industry and the Advisory Committee of the Treasury Department.

It was found, upon discussion, that some features of the proposed amendment did not meet the approval of the Treasury Department, and it was found necessary to withdraw the optional clause, which, while not so intended by the mining committee, appeared to ask for the right to settle under the provision of the present law or under the new amendment, as the interest of the taxpayer might dictate. This seemed to offer opportunity for the payment of a less tax, and the position of the mining men was that they did not seek to lessen the amount of taxation upon the mining industry, but only to equalize it as compared with other industries and with different branches of the mining industry as compared with each other. This apparent inconsistency made it necessary to withdraw the request for the optional clause, which was originally intended to permit settlement under the provisions of Sections 205 and 210, where those sections were intended by the framers of the law to apply.

From various letters received by this office in response to requests for criticisms of the bill, it was found also that the newer developments had not been properly considered, and that no provision had been made for those companies having no pre-war earnings.

As a result, the following proposed amendment was agreed upon, and has been submitted to the Treasury Department for its consideration:

PROPOSED AMENDMENT

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That Section 207, of Title 2, of the Act entitled "An Act to provide revenue to defray war expenses and for other purposes," approved October 3, 1917, be amended by the addition of a new subdivision "C" to Section 207, reading as follows:

(C) In the case of mines, oil and gas wells, invested capital therein means:

(1) The average net income thereof during the pre-war period capitalized at 8 per centum.

(2) If there were no net income during the pre-war period, but if there were net income prior to January 1, 1917, then invested capital means the net income thereof for the taxable year 1917, capitalized at a percentage equal to the ratio of net income to invested capital as determined above for the same calendar year of representative corporations, partnerships, or individuals engaged in a like or similar business, operating under similar conditions, and the provisions of this paragraph shall apply to cases coming within the scope of Section 205 of this Act.

(3) If there were not net income prior to January 1, 1917, then the mines, oil or gas wells shall, for the first two taxable years only, be deemed to have no invested capital, and within Section 209 of this Act, and shall pay for such two years the tax provided in that section; thereafter the invested capital therein means the average net income of the first three years thereof capitalized at a percentage equal to the ratio of net income to invested capital as determined above for the same calendar years of representative corporations, partnerships, or individuals engaged in a like or similar business, operating under similar conditions.

(4) And subsequent capital additions, paid-in or earned surplus and undivided profits used or employed in the business, exclusive of undivided profits earned during the taxable year.

(5) But in no event shall the invested capital so determined be less than the actual cash paid in.

EXPLANATORY STATEMENT

Under the Excess Profits Tax Act, both the deduction and the rate of tax are a function of invested capital. The act defines invested capital as "the actual cash value of tangible property." As applied to mines, oil and gas wells, admittedly there is no certain way of physical valuation. "The rational valuation of such a property is described as the present value of future profits." (W. L. Uglow, "Mine Valuation," page 27.) J. R. Finlay ("Mining Costs," page 15) says: "The question that determines the value of such property is what annual income does it yield?"

We, therefore, suggest that such properties be valued by capitalizing their average income during the pre-war period. As the Income Tax Act allows the owner of such properties, in arriving at his net income, an annual depletion or sum for amortization of investment, our capitalization method need not be complicated by inclusion of compound interest or sinking fund formulae. We have accordingly adopted for established concerns a straight capitalization of the pre-war income at 8 per cent.

The effect of this is that such concerns will be allowed a deduction for the taxable year equal to the average pre-war earnings, and the tax will fasten on the excess at the rates prescribed in the Act.

There remain two exceptional classes—first, the company that has no pre-war earnings, but has become prosperous since January 1, 1914; and, second, the new concern or prospector.

The former class is allowed by the proposed amendment a capitalization on the basis of representative concerns. It is a fair assumption that their income is the same percentage of invested capital as the average income of representative concerns engaged in the same industry. It is just that they should pay the same rate of tax. Paragraph 2 of the proposed amendment is intended to produce this result. For eample, if a typical concern has earned in 1907 40 per cent on its "invested capital," the amendment determines the 1917 earnings as 40 per cent thereof.

The remaining class embraces prospectors and new companies. These require different treatment. They are the pioneers of the industry, and during the inevitable struggle of their formative period must be encouraged, if the industry is to be kept up and expanded Known shortage of essential minerals confronts us unless immediate steps are taken to stimulate the exploration and exploitation thereof and develop the mining activities needed. Therefore, a method is suggested which for the first two years of taxable income considers them as having only normal capital within Section 209, and imposes a fixed tax of 8 per cent on the net income. Thereafter they fall within the second class, and capital invested is determined accordingly.

Among the advantages attainable through the proposed amendment are:

1. It equalizes taxation within the industry.
2. It removes the necessity on the part of the Government for physical valuation of mines, oil and gas wells.
3. It affords a simple method to calculate the tax and verify returns through income tax records already filed with the Government.
4. It permits the taxpayer to estimate in advance the amount of his annual tax, and set aside, monthly, if desired, a sum sufficient to meet the same.
5. It places the industry on the same footing as other industries and imposes on it approximately the same tax.

Respectfully submitted,
Oil and Gas:
John J. Shea, Oklahoma.
Wm. H. Davis, Oklahoma.
J. F. Cottingham, Oklahoma.
Coal:
A. G. Dickson, Pennsylvania.
Herbert Pope, Illinois.
Missouri Valley Lead and Zinc:
A. Scott Thompson, Oklahoma.
Victor Rakowsky, Missouri.
Western Metal Miners:
Ravenel Macbeth, Idaho.
A. G. Mackenzie, Utah.
Bulkeley Wells, Colorado.
Copper:
Archibald Douglas, Arizona.
Paul Armitage, New York.
Attest:
J. F. Callbreath,
Secretary.

GOVERNMENT RAILROAD CONTROL

Very general approval has been given to the action of the President in taking absolute control of the railroads of the country. The fact that railroad officials approve this action is peculiarly significant. The Mining Congress Journal approves this action, but condemns the conditions which have made it necessary. The transportation systems of the country, between the upper and the nether millstones of the Interstate Commerce Commission, with authority to fix the charges which it could make for its service, and the tax gatherers, and the labor unions, with power to take from the railroad without the formality of a bargain, have made impossible the increased equipment and terminal facilities which were necessary to handle the increasing business of the country. That railroad officials welcome an opportunity to lay down the increasing responsibilities to an extent proves the claims of railroad managers in the past, that they must be allowed to charge a higher price for the service rendered. It is true that there has been mismanagement, that too lavish salaries have been paid, that undue expense was incurred to secure business, and that a lack of coordination between the various lines in the handling of the country's business has largely increased expense and reduced the power of performance. Government operation at this time may secure perfect coordination, and, if properly exercised, be of substantial benefit to the country during present conditions. Those who believe that the Government should eventually control the transportation systems of the country, and those who approve because they believe that Government operation must necessarily be a failure, will have opportunity to see a demonstration of their respective beliefs.

A HOPEFUL OUTLOOK

Business conditions in Canada are reported to be in a most flourishing condition. Buying of all grades of goods is rapidly increasing in anticipation of a continually rising market and a general increase of consumption. This condition is in marked contrast with the situation in this country, where fuel shortage and freight embargo are interfering with the ordinary course of business, and new enterprises are hesitating because of a probability of an increasing tax upon business operations. Canada, it is said, went through practically the same experiences in the early days of the war, as are now being experienced in the States. Notwithstanding the present depression, it is fair to assume that in the not distant future business will again assume its normal conditions, and that the increased consumption of goods necessitated by the war, will demand increased industrial activity and production in every line. Canada's experience justifies a rosy view of future business conditions in the United States.

LOOK HIGHER UP

The Wall Street Journal compares the ancient practice of arteriotomy as a treatment for fever with the embargo upon industry as a treatment for coal shortage. This treatment comprehended the bleeding of the patient until so weakened by loss of blood as to make normal his temperature.

"The duty of the Fuel Administrator," says the Wall Street Journal, "was to secure increased quantities of fuel and see that they were taken as expeditiously as possible where they could do most good. From those who know how to handle the traffic of the country he was offered an admirable zone system, involving the shortest possible hauling distances of coal, but turned it down for the extraordinary reason that he was afraid the coal operators might profit by it. He completely failed, in fact, in his job; and he now applies the topsy-turvy remedy of arteriotomy to the industries of the country. He says, in effect, that while there is not sufficient coal, in his opinion (a mistaken opinion, by the way), to supply these industries, if he can bleed them so that they will consume less coal, in a short time he will have achieved in another way the object for which his job was created and he himself appointed. If production is so contracted that there is plenty of coal for those who remain, Mr. Garfield not only thinks that he has succeeded, but that it is immaterial in which of the two ways he succeeds. The shortest way out of the difficulty now is removal of Garfield at once, because a man to whom such a mental process is possible—and Mr. Garfield has shown that he considers his course natural and the simpler way—is totally unfit for such a post at a time when the country desperately needs all of the new work it can create."

The Mining Congress Journal does not agree with the conclusion reached by our New York contemporary. Dr. Garfield undertook a most serious and difficult task—a task which would have appalled anyone with a full comprehension of the situation.

Having been selected for this trying position, with slaughter as the almost certain ending, because of conditions made for him and over which he had no control, it is hardly fair to demand his removal at the most trying time. Thus far the elements have been against him; summer will come with its relief. One held responsible for the effects of cold weather ought to have credit when milder weather brings its blessings.

Let the Wall Street Journal direct its shafts against the man higher up who was mainly responsible for destroying the Lane-Peabody plan.

Tom Johnson's school of Socialism has much to answer for.

SELF-REGULATION OF INDUSTRY

No great undertaking can be carried on successfully except there be somewhere lodged a power to finally determine its policy and procedure. The more nearly autocratic that central power becomes, the more effective its operations. The people of the United States, without respect to party, have, since the declaration of war with Germany, stood squarely behind President Wilson, outwardly endorsing and approving his every act, without regard to whether these acts were considered wise or otherwise. It has required much of patriotism to induce the approval of policies known to be foolish and believed to be fraught with grave danger to the country. The coal operators of the United States, with a capacity for the production of 50 per cent more coal than the country could possibly use in normal times, accepted without protest the Presidential order fixing a price upon coal so low as to automatically prevent the excess production, thus leaving unprovided for the increased consumption necessitated by war conditions. Far-sighted coal operators stood aghast at this order, and in patriotic approval hoped for better results than their judgment believed possible. The coal industry was unorganized. Perhaps someone, from the national viewpoint, could solve a problem which individual operators by themselves had been unable to meet. At any rate, the effective power of the nation required of them complete approval. The internal dissensions of Russia, which have made her entirely ineffective in the present great war crisis, seems to be sufficient reason why individual interests should be disregarded and individual judgment set aside in order that a united front could be presented to the enemy.

Unfortunately, the worst misgivings are being realized, our united front is disorganized, and we are forced, although with great reluctance, to admit that our industrial machine has broken down and that new policies will be necessary in order that our united front shall be an effective fighting front. No satisfaction can be derived from the admissions which we cannot escape—that our industrial machinery has broken down; that the productivity of the nation is being curtailed by the shortage of heat and power, particularly needed because of the shortage of labor consequent upon the withdrawal of the large number of those who have joined the colors. The Mining Congress Journal has consistently refrained from criticism of the Fuel Administration; it has pointed out the enormous responsibility of the Fuel Administrator and the great difficulties of his work; it has believed Dr. Garfield an honest, conscientious man, striving in a big, broad way to carry the responsibilities of his position. Nevertheless, it believes that the present coal famine is the necessary and natural result of governmental interference with the orderly conduct of the coal mining business. It believes that self-regulation is the best remedy for the ills of any industry.

FOURTEEN DAYS OF FOOLISHNESS

Success in the prosecution of the war depends upon men and equipment, and by equipment is meant food and munitions and the transportation of these necessities to the battle line. The productive forces of this nation must work overtime in order to avoid want upon the one hand and to insure success upon the other. Not only must production go on at a great pace, but it must be on a profitable basis in order that there shall be a taxable surplus from which the extraordinary expenses of the Government may be met. In face of the great demand for increased production of all necessaries, it is somewhat amazing that an order should be issued closing down two-thirds of the productive power of the United States for a period of two weeks, shutting off approximately 5 per cent of the total annual production of the United States.

The stoppage of production is justified as a necessity in order to bring relief from the pitiful conditions resulting from a misguided effort to save the public from the inevitable consequences of violation of the law of supply and demand as it relates to the price of coal. Mining Congress Journal has before pointed out that the difference between 5 per cent and 10 per cent of our total annual production exported to foreign countries means the difference between hard times and flush industrial times—the difference between having all labor employed at remunerative wages and having 5 per cent of the country's wage-earners seeking the jobs of the other 95 per cent.

What is to be the increased cost to people already burdened with enormous prices, and what is to be the effect upon our ability to supply the armies at the front when this amazing order has taken from the competitive markets of the country 5 per cent of its total annual production?

George H. Cushing, editor of the Black Diamond, of Chicago, in giving his testimony before the Manufacturers' Committee of the United States Senate upon the coal situation, testified that a 1 per cent shortage of coal meant an increase of 5 cents per ton in the price; a 2 per cent shortage effects a change of 15 cents per ton; a 3 per cent shortage a 50-cent increase in the price of a ton of coal, and a 4 per cent shortage resulted in a runaway market.

Senator Reed has estimated that the fourteen days idleness would cost the American people $1,500,000,000 in wages and profits. This would amount to $3 per ton upon the total annual coal production of the United States.

The difference between the Lane-Peabody plan and the Baker-Colver plan was $1 per ton, or one-third of the loss which must be borne by people who do not get the coal which they are forced to pay for.

Someone must pay for the nation's fourteen days' idleness. It is estimated that the saving of coal will approximate 10,000,000 tons. This coal will cost the nation not less than $150 per ton. No price is too high to pay for coal if the nation needs it. Any price is too high to pay for foolishness.

A MINERAL DICTATORSHIP

The marvelous growth of this great nation has been accomplished through the individual effort of its people, each being given full liberty within a certain sphere and required to excel his neighbor either in excellence or efficiency of production, in order that he might in fair competition control a market in which others producing similar goods were striving to gain public favor. This system has developed machinery which has resulted in giving to all of our people more of luxury, more of convenience, more of educational opportunity, more of leisure, more of all of those things which are considered desirable in human life than have ever been obtained by any other people in the history of the world. The only instance in which this system has failed to produce an efficiency adequate to all demands is in the matter of transportation. Its failure is plainly traceable to official interference growing out of a well-intentioned public control, based upon a public sentiment created by muckraking publicity. This failure to distinguish between a just control which left a satisfactory margin of profit and an unduly restrictive control which prevented investment is responsible for the failure to keep transportation facilities abreast with the increasing demand for public service. With the exception of transportation, every other line of business in this country has met the public demand. A shortage of supply in any particular brought an increase in price, which immediately stimulated greater production. These were the conditions at the beginning of the war.

Coal was the one necessity in which productive facilities were largely in excess of possible consumption. It was the one business more entirely misunderstood by the public than any other. It had ample facilities to meet every possible demand for consumption for usual business purposes, to meet the increased service required by the war, and to provide our allies with more fuel than our seagoing service was able to deliver. Instead of leaving this situation to be met by natural competition, governmental interference was undertaken, the foolish policy of price-fixing adopted, a fuel dictator appointed, and other machinery was created calculated to produce the present coal famine. And now the Fuel Administration is frantically adding to the confusion by giving priority orders, filling one vacuum by creating several others, each in turn to be filled by creating other deficits in geometrical ratio. Coal operators rushed to Washington to secure some modification of orders making it impossible for them to supply customers' needs, and customers rushed to Washington, hoping, through the new business machine, to secure something like the service previously rendered.

We have the pitiful spectacle of a few men, ignorant of the business of coal production, undertaking to patch out and repair a marvelously constructed piece of machinery, into which, when in motion, some idiotic reformer had thrown a monkey-wrench. As a result, the most vital need of the nation in the prosecution of the war, the most vital need of the nation in the conduct of its ordinary business, the most vital need of the nation for the comfort of its citizens—coal—is not available to meet the requirements of the day.

And then an oil dictator is appointed. Mr. Mark L. Requa is a splendid gentleman. With priority order calling for full production of war material, steel mills are idle, so that casing for oil development was practically unobtainable, production began to fall, and the same old monkey-wrench thrown into the machinery by the idiotic reformer has so shut out oil development and production as apparently to make necessary the appointment of an oil dictator. We trust that he will be more successful than has Dr. Garfield in handling the coal situation. And now it is proposed to give us a general mineral dictator, authorizing the President—

> To requisition and take over, as a going concern, for use or operation by the Government, such mineral land or deposits, mine, smeltery, plant, factory, business, and all appurtenances thereof belonging to such producer, manufacturer or dealer, and to develop, operate or cause the same to be developed or operated in such manner and through such agencies as he may direct.

The plan for a mineral director grows out of the fact that certain of the rare minerals are being imported from foreign countries while our domestic supplies cannot be worked at the market price. The idea of stimulating the production of these minerals by Government contracts extending long enough to justify the development of these properties was worthy of the highest commendation. That a mineral dictatorship shall be created to meet this situation, with power to throw a monkey-wrench into machinery already developed to meet public requirements, is not a proposition which will meet the approval of the mining men of the country, and is as certain to prove disastrous as was the plan of the Adminstration for controlling the fuel supply. The principle is wrong and cannot be applied successfully. Better seek to accomplish the good in the plan by intelligent methods. Until the damage occasioned by the interference with coal and transportation can be remedied, the country will look aghast at efforts to experiment with any other branch of business so long as it is meeting public requirements.

PRICE, THE FINAL DICTATOR OF PRODUCTION

"We taste the spices of Arabia, but do not feel the scorching sun which brings them forth."

The above inscription in the rotunda of the Congressional Library, in Washington, carries a world of philosophy, neglect of which is responsible for the most serious conditions in which the United States now finds itself. The machinery of production, distribution and exchange, the machinery which brings to our table from remote foreign countries the luxuries which would be otherwise unobtainable has been developed by the unconscious genius of the ages.

This machinery is incomprehensible to the human mind, as incomprehensible as the law which governs the growth of vegetable life:

"Thou cans't not see the grass grow,
  How sharp soe'er thou be,
But that the grass does grow
  Thou very soon shalt see."

We do know the rays of sunlight are necessary to set in motion the wonderful growing force of nature. We do know that price is the inspiring motive of production, transportation and exchange.

Through this vast incomprehensible system individuals seek a profit on business transactions. Whenever the consumer is unable to pay his share of the cost of creating by wholesale and distributing by retail these luxuries, the machinery naturally and necessarily ceases to operate. Except in the case of monopolistic control, no other incentive than price will so surely make available the luxuries and necessities of living at a reasonable and fair price. If the price is too low, production stops; if the price is too high, the promise of an extraordinary profit immediately induces others to enter into competition, and prices are automatically reduced to a point where profits and prices are again reasonable. In order to insure a large production of wheat during the coming year, the Government very wisely and very properly fixed a minimum price, guaranteeing to the farmer that overproductions would not prevent him from making a profit upon his operation.

Price may not absolutely control wheat production, but there is no question but that it will stimulate the largest possible effort in this behalf, and, given proper weather conditions, the wheat crop of 1918 will be the greatest in the history of this country. A minimum price is guaranteed, and the farmer is left to sell his wheat at the market price should this be in excess of the price fixed by the Government.

Exactly the opposite course was taken with reference to coal production. Coal is an absolute necessity and for which there is no adequate substitute. There was need for a 20 per cent increase in the usual production of coal. To insure this increase in production, a maximum price was fixed below the cost of production in mines producing more than 25 per cent of the coal in the country. If the cost of bituminous coal production was uniform in all of the country's mines, it would then be possible to fix a price which would stimulate production in all of the mines without granting any extraordinary profit to those mines where the cost of production is at the minimum. It is evident that a mine with a large vein of clean coal, with its operation close to the shaft, with its underground hauling and ventilation costs at the minimum, may make an inordinate profit at one time, when, perhaps, that same mine, with its workings thousands of feet from the bottom of the shaft and carrying the cost of keeping ventilated a large area of worked-out ground, might be producing at exact cost, and another mine, under similar conditions, except having a narrow seam, might not be able at the market price to produce at all.

These varying conditions, if prices were to be interfered with, should have pointed out the importance of fixing a maximum price which would permit all of the mines necessary to meet the public need to operate at a profit. The failure to do this is directly responsible for the present coal famine. It is true that a lack of transportation had to do with the situation; it is true that a failure to purchase coal when it was available because of a promise that coal would be cheaper at a later date, had its influence and that various other agencies have interfered. The one cause certain to produce the present result was the fixing of a maximum price below the cost of production in the more expensively operated mines.

Competition in coal production would have met the price question much easier than it is now possible to meet a coal shortage. Price is ridiculously unimportant in the face of famine.

MINERS IN CONVENTION RATIFY WASHINGTON WAGE AGREEMENT

The United Mine Workers of America, in session at Indianapolis, Ind., by an overwhelming vote ratified the Washington wage agreement. Under this agreement both mine workers and mine operators are subject to pecuniary penalty for any diminution of coal production due to labor difficulties.

Fuel Administrator Garfield sent the following telegram to John P. White, of the Fuel Administration, in attendance at the convention:

"Please express to convention my sincere appreciation of their action in ratifying, by overwhelming vote, the Washington agreement, thus confirming assurance given to President Wilson last November that miners would take this step as practical means of assuring uninterrupted work at mines. By this vote mine workers have proved their understanding of present crisis and have responded most patriotically."

Time Extended

The provisions of T. D. 2615, December 13, 1917, extending the time to February 1, 1918, to corporations filing returns for war income and war excess profits taxes, pursuant to the Act of October 3, 1917, on the basis of a fiscal year ended on the last day of some month during the year 1917 (except December 31, 1917), are hereby amended so as to extend the time of filing such returns until March 1, 1918. This extension applies also to returns of annual net income of such corporations which were due subsequent to October 16, 1917, the date of T. D. 2516 (extending the time to January 1, 1918), but prior to March 1, 1918.

Harris & Ewing

J. D. A. MORROW

New Manager of Coal Distribution

TOLOVANA DISTRICT OF ALASKA HAS GOLD OUTPUT OF $700,000

Some general features of the Tolovana district of Alaska are recounted by J. B. White, Jr., of the staff of the Geological Survey, as follows:

"At Livengood, as in every new mining camp, attention has first been directed to the mineral deposits most easily and cheaply won—in this camp the gold placers. Only the older and richer auriferous bench gravels have so far been mined. The present stream gravels may later prove worthy of attention.

In 1916 twenty-one plants were engaged in mining the bench gravels of Livengood Creek, and one in mining the creek gravels. These operations were carried on by underground mining. On Gertrude, Ruth, Lillian, and Olive creeks five small plants were engaged in open-cut mining, and four other plants were planning to begin operation late in the season or early in 1917. In all, twenty-seven plants were operated, compared with ten operated in 1915. The value of the gold produced in 1916 is estimated at $700,000, compared with a production of $80,000 in 1915.

Development work has been attempted on one gold lode prospect, but little has yet been accomplished.

MORROW NAMED MANAGER OF COAL DISTRIBUTION

Secretary of National Coal Association Named by Fuel Administration to Look After All Apportionments

The United States Fuel Administration, on January 21, announced the appointment of J. D. A. Morrow to be Manager of Apportionment and Distribution. This appointment was in accordance with the general plan of centralizing the authority and lines of report at headquarters. It is intended to facilitate the introduction of the new plan of partial decentralization of apportionment and distribution without over burdening the present organization.

Mr. Morrow has general charge of the apportionment and distribution, from producer to consumer, of all fuel except petroleum. He will supervise all budgeting and statistical work, as well as pools and other transportation matters. He and the bureaus reporting to him have no connection with the fixing of operator's base prices or retail prices, nor has he authority or supervision over State administrators on matters other than apportionment and distribution.

Mr. Morrow has been assistant secretary of the Federal Trade Commission, commissioner of the Pittsburgh Coal Producers Association, and recently general secretary of the National Coal Association, representing the bituminous coal operators of the country.

Explains Wage Situation

The United States Fuel Administration, January 25, issued the following statement:

"On October 26, 1917, the United States Fuel Administrator, H. A. Garfield, wrote a letter to the President of the United States in reference to a proposed increase in the wages of mine workers in bituminious fields. On October 27, 1917, the President of the United States issued an order granting an increase amounting to 45 cents per ton in such wages.

'It has now been brought to the attention of the Fuel Administrator that consumers having contracts for the purchase of coal, made before August 21, 1917, at prices below the President's prices, have been notified that this letter and this order put upon them the obligation to add to the price named in such contracts, the 45 cents increase specified in this order of the President, although the contracts contained no provision for a variation in price to correspond with changes in wage scale. This is not correct. Neither this Executive Order nor Mr. Garfield's letter in any degree lessens or affects the obligation of the vendor named in contracts which contain no such clause, to make deliveries under these contracts at the prices named therein."

WESTERN STATES PLAN TO RAISE $27,000 FUND

Governor Boyle Points Out Need for Active Representation in Washington of Metal Mining and Oil Interests

Metal mining and oil producing states are to take a more active part in the affairs of the American Mining Congress. Representatives of a number of Western States gathered in Denver recently and had a heart-to-heart talk with regard to the American Mining Congress and its work. As a consequence, it was resolved: "That a contribution of $3,000 be apportioned to each of the following States: Arizona, Nevada, Idaho, Montana, Colorado, Utah, California, Wyoming, and Oklahoma. This sum is to be raised by each state under whatever plan may seem most advisable and practicable." This contribution is to be turned over to the American Mining Congress for the forwarding of its work. The object of the conference is set forth concisely in the remarks of Governor Boyle, of Nevada, made on that occasion. His remarks in full follow:

"I have been asked by Mr. Burns, and the duty is a pleasant one, to say a word relative to the work of the American Mining Congress in Washington, but before proceeding with that I desire to say that it was my misfortune to be absent this morning when a most commendatory and flattering resolution endorsing my capable service was adopted by this body. I feel under obligations to you that I am illy prepared to express, but you have my assurance that if anything I have been able to do in the past has been of service to you that my services are in the future at your disposal; that anything I can do of any consequence legitimately for the mining industry—and industry in which I was raised, and an industry in which I have something more than a sentimental interest—I shall be only too glad to do.

"Now, regarding the work of the American Mining Congress in Washington, I desire to say that I am not a member of the Congress, or I was not a member. I am glad to say I have enrolled recently. I was among those who believed that its utility to Western mining interests was not as high as it should be, but after my arrival in Washington, where I went on this silver business, it was my good fortune to be called into a conference there that had to do with direct problems of the Western metal miner, and these problems were handled through the office of the American Mining Congress, and by a gentleman who must be known more intimately to you than he is to me. That man is working under pressure in Washington at this time that no man should be required to work under. He has an inadequate working force, he has inadequate apparatus to carry on the big work which he is undertaking at the present time, and he is doing everything a human being could do to secure discussion of the problems of the Western miner, and to bring uniform presentations of the cases of the miners to those various departments in the Congress of the United States which the occasion requires. And I want to say in that connection, to repeat something you have heard on the floor this morning from some of your local senators, that the principal trouble with the mining industry today in the securing of the legislation so vital to its needs, is the inability of its members to get together in a constructive program which may be presented to those in authority for adoption. I believe that one of the most pathetic and ineffectual campaigns that I have ever witnessed was the campaign which was on during my month in Washington, and which is on today, looking to securing remedial legislation in the matter of the excess profits tax. The trouble with the average mining man is that he is an individualist. He believes in his own theories, and he believes so thoroughly in them that he is not willing to listen to the other fellow's viewpoint, at least until he has presented his own. As a result of that situation there has been presented to the Advisory Commission, assisting Mr. Roper, of the Treasury Department, in his efforts to make something out of this tangled mess, about ten thousand separate and distinct propositions looking to the curing of the defects in the excess profits tax act, and during the time I was in Washington we met every day, every morning, and every afternoon, when I was not engaged on this particular silver business I went there for, in listening to the unusual views of men who came in there every day to suggest remedies, and everyone of them was, when you got right down to the bottom of the situation, holding in view only the manner in which the legislation would affect his particular industry.

"Now, Mr. Callbreath, of the American Mining Congress, was on the ground when this bill was passed. Personally I have documentary evidence in my own office that he was alive to the situation that existed at that time, and that he was endeavoring then to secure a uniform presentation of the case of the Western metal miner to Congress. Congress, as an actual fact, heard nothing of the proposition until the bill was passed. When it was passed, and when the miners began figuring out their profits by the graphite method, and they discovered that many of them were going to be injured and injured seriously, they came back to Washington, or sent representatives to Washington, who went there, in many instances, with no consideration of the fundamental principles which should underlie a basic system of taxation, but proposing some scheme which might, in their judgment, relieve their particular industry from the burdensome provisions of the tax as it now stands. I want to say that after about three weeks' work on this proposition I can bring back to you the very discouraging assurance that you cannot hope for any correction in that legislation until you come there with a definite plan, and that you cannot hope for any correction in that legislation until the plan you propose is the sort of plan which patriotic Americans should, in this crisis, propose to their government. You must take into consideration the fact that the mines will be required to pay a fair tax. The Government does not desire any more than a fair tax from them—a tax fairly equalized with the tax which will be imposed on the other industries of the country, but no proposition has yet been submitted to the Government of the United States which proposed a fair tax on the mining industry, and until such a proposition is presented, it seems very doubtful to me that you will have any expectation—should entertain any expectation of relief.

"Now in this connection the necessity for some representation in Washington that can take care of the quasi political questions arising in the mining industry must be apparent to all of you. I believe conscientiously that that organization which now exists in Mr Callbreath's office is the organization which, properly strengthened and supported, will do for you all those things which have to be done at the present time, and in continuously increasing numbers in the future. Legislation that may seriously threaten the very existence of your industry is apt to come up. Matters of departmental ruling will be coming up there every day, and you must have representation in Washington to care for this matter, and you must have representation that is found outside of the very busy department heads of your representatives in the Congress. It gives me a great deal of pleasure to be able to testify to the very valuable service of the American Mining Congress in Washington, and you should strengthen that arm to the extent that the service it requires may be an adequate service. Mr. Burns has asked me to read you a statement or resolution which explains the needs of the Congress at this time. Mr. Callbreath says he desires two additional assistants during the session of Congress at $300 per month for each for ten months—$6,000; one permanent man at $3,000 per year, two stenographers at $100 per month each—$2,100; extra help, extra office space, telegrams, postage, publicity, etc., approximately $5,000. He should have about $20,000 to guarantee the greatest possible results. I don't know where you could spend $20,000 to better advantage to the industry at this time than in the manner which has just been presented to you, and I believe that the little quarrels which exist, or have existed, between the Mining Congress, with its peculiar political function to perform at this time, and the local state organizations, organized to take care of a different phase of the mining problem, should be sunk, at least, for the period of the war, and I thank you very much for hearing from me on this point, and I trust you will recognize my statement is a most sincere one—a statement which is the outgrowth of my personal observation of the activities of Mr. Callbreath and his department in Washington, and of the work that that department has been doing, hampered as it is, in the interests of the industry which we all here represent today. I thank you."

Those present at the conference were:

Nevada. Honorable Emmett D. Boyle, Governor; Henry M. Rives, Secretary, Nevada Mine Operators Association.

Idaho.—Honorable E. I. Rockwell, Bellevue; Jerome J. Day, Wallace; Eugene R. Day, Wallace; James M. McCarthy, Wallace; A. E. Carlson, Boise; R. M. Bell, State Mining Inspector, Boise.

Utah.—John J. Mullen, director, Welfare Department, Utah Copper Company; Fred Reedmond, silver and coppeer producer, Salt Lake; Walter Fitch, and Cecil Fitch, his son, of Eureka, Utah.

Montana.—Dr. T. A. Gregg, of the Beaverhead-Alberta Oil and Gas Co., at Butte.

Washington. Francis A. Thompson, dean of the School of Mines at Moscow, Idaho, delegate from the Northwest Mining Association.

Wyoming.—A. I. Hetherington, Riverton; O. A. Parker, Kaycee; R. G. Taylor, Casper; Dr. John A. Leeper, Ivan S. Jones, Kemmerer; W. S. Kahl, Kemmerer; Frank G. Curtis, Casper.

One of the resolutions adopted at the general conference of mining men held in Denver January 22, 23 and 24, is as follows:

"Whereas we are reliably informed that the Government for the purpose of settlement of adverse trade balances for the assistance of our Allies and for other urgent governmental needs has in contemplation the introduction of a bill providing for the withdrawal of a considerable part of the reserve of silver now standing behind United States silver certificates in circulation and the temporary withdrawal of the said certificates under a plan whereby the Government proposes purchasing silver at the fixed price of one dollar per ounce for its immediate needs, and for the replacement of silver so withdrawn from the Treasury until the silver withdrawn as hereinbefore stated shall have been completely replaced, and

"Whereas it is the desire of the silver miners of the West to cooperate with the Government in any plan which at this time may be found necessary to the successful conduct of the war, having in mind, however, that the real interests of the Government will not be served unless the prices fixed for the products of its mines be sufficiently high to maintain production to that point where the present and future needs of the nation and its Allies will be properly cared for.

"*Therefore be it resolved*, That this conference of The Colorado Metal Mining Association and Colorado Chapter of The American Mining Congress, together with the delegates from the mining organizations of Utah, Idaho, Montana, Washington, Nevada, and Wyoming, held in Denver on the 22d, 23d and 24th days of January, 1918, does hereby endorse the proposed plan of the Government hereinbefore stated, and pledges its cooperation in securing such legislation as may be necessary to make the said plan effective, and

"*Resolved Further*, That a copy of this resolution be forwarded to Mr. J. F. Callbreath, secretary of The American Mining Congress, Washington, D. C., with instructions to bring the same to the attention of those who may be instrumental in its accomplishment."

The Utah Chapter's resolution on the silver question is as follows:

"Whereas on or about the 14th day of November, 1917, there appeared in the newspapers, as an Associated Press report, a short item to the effect that the National Government contemplated the fixing of the price of silver at about 86 cents per ounce, and restricting the free and general export of this commodity; and

"Whereas this item attracted the attention of His Excellency, Governor Emmett D. Boyle, of Nevada, who, recognizing the importance of increased silver production as essential to the successful prosecution of the war, and the economic effect such action would have on the welfare of the nation and its Allies, and particularly the silver producing states of the West, immediately summoned for conference a number of the silver producers of the State of Nevada, and communicated by telegraph with the executives of other western states, notably Utah, Idaho, California, Oregon, Washington, Montana, Wyoming, New Mexico, Arizona, and Colorado; and

"Whereas at the meeting of the silver producers of Nevada Governor Boyle was delegated to go to Washington and present the case not only for the silver producers of Nevada, but for the silver producers of all the western states; and

"Whereas the executives of the western states, and the mining interests of the western country generally, responded to Governor Boyle's appeal and cooperated with alacrity, sending strong delegations to Washington; and

"Whereas at the various conferences held in Washington with the Federal officials Governor Boyle demonstrated such a precise grasp of the situation, and such a broad knowledge of the facts, coupled with so aggressive and efficient an attitude, that, by common consent, he was made the spokesman, not only for Nevada, but for the entire aggregation of interests affected; and

"Whereas the presentation of the engineering, economic, and social features of the case was led by Governor Boyle who demonstrated the essential wisdom and necessity of making a $1 price on silver, which would provide for the placing of silver on a sufficiently reasonable basis to discharge our debit balances on trades with the Orient; and

"Whereas the arguments and conclusions were committed in the form of a memorandum for Congressional enactment, and have subsequently taken the form of a bill in extenso, which, we are informed, is acceptable to the Treasury Department and all concerned, and will shortly be introduced in Congress; now, therefore

"*Be It Resolved*, That the Utah Chapter of the American Mining Congress takes this means of expressing its hearty appreciation of the inestimable service performed by Governor Emmett D. Boyle in his initiation of and leadership in the movement to bring silver to its proper place as a wealth producing mineral of the western states, and expresses the firm and unqualified conviction that the nation is his debtor for this contribution to the revival of silver production; and

"*Be It Further Resolved*, That the secretary be, and he hereby is, directed to spread this resolution, in full, upon the minutes of this meeting, and that he prepare and forward a copy hereof, signed by the proper officer of this Chapter, and attested by the signature and seal of the secretary, to His Excellency, Governor Emmett D. Boyle, of Nevada."

Unanimously adopted by the Executive Committee of the Utah Chapter of the American Mining Congress this nineteenth day of January, A. D. 1918.

JOHN M. HAYS,
Chairman.

Attest:
MURRAY SCHICK,
Secretary.

As to the supply of certain so-called rare metals, namely: Molybdenum, Tungsten, Manganese, Chromium, Pyrites, Potash, and Nitrates, it was resolved:

"(1) That we favor the encouragement by subsidy, direct and indirect, and in every other way of the production of such rare metals.

"(2) That we favor the stimulation by every possible means of the production of gold and silver.

"(3) That we do not favor Government control or operation of mines producing gold, silver, copper, lead, zinc, or other metal in mineral, unless a shortage should develop therein."

That copies of the resolution be sent to the secretary of the American Mining Congress, to the various state organizations represented for transmission to their respective Congressional delegations, to the members of the various House and Senate Committees concerned, to the Secretary of the Interior, and to the Director of the Bureau of Mines.

To Eliminate Power Waste

The electric railways of the country were called upon to cooperate with the United States Fuel Administration in the conservation of coal used in generating electric power in a communication issued by the War Board of the American Electric Railways Association. The Electric Railways War Board urged all electric lines to aid in carrying out suggestions recently made by the Fuel Administration to State Administrators looking toward the limitation of unnecessary uses of electric power. The communication of the Board outlined in detail the unnecessary uses of electricity which can readily be eliminated.

COAL DISTRIBUTION PLAN IS OUTLINED

Producing Fields of County Divided Into Twenty Districts Geological Survey Helps Work Out Problem

The United States Fuel Administration has announced the appointment of E. R. Clayton, of Harlan, Ky., to be district representative of the Fuel Administration for the coal fields located in Georgia, Tennessee, and the counties of Bell, Harlan, Knox, Whitley, McCreary, and Laurel in Kentucky. Mr. Clayton is the sixth district representative named under the permanent systematic plan for the distribution of the country's bituminous coal supply, which the Fuel Administration is adopting, and which was outlined by United States Fuel Administrator Harry A. Garfield in his testimony before the Senate Committee investigating coal conditions on December 26.

The plan contemplates a system of coal distribution that will insure the speediest possible movement of coal from the mine to the consumer, and the immediate return from consuming centers to the mines of empty coal cars. It will eliminate, so far as possible, cross hauling of coal by providing for the movement of coal from the mine to the consumer along the shortest possible transportation lines.

Under the plan each state will be allotted its quota of the estimated output of bituminous coal. This allotment will be supplied from the output of certain definite producing districts Coal for each state must move from the producing districts in which the states allotment is located and from no others.

The producing fields of the country have been divided into some twenty districts, and a district representative will be named in each of these. These district representatives will allot equitably all orders and requests for fuel from the Fuel Administration among the various shippers and mines within his district. They will be responsible for the prompt filling of coal orders, and the prompt movement of coal out of the producing fields. They will see to it that each state receives only its authorized quota from the producing districts. All requests and orders for emergency coal, either by the Federal Fuel Administration or by State Fuel Administrators, will go through these district representatives.

The whole system of coal distribution and apportionment will be under the general direction of J. D. A. Morrow, manager of Apportionment and Distribution, working directly under United States Fuel Administrator Harry A. Garfield.

The new distribution plan, which was conceived by the Fuel Administration soon after its organization, called for an enormous amount of detail work in the estalbishment of temporary quotas in the coal budget for each state. This work has been progressing for two months under tremendous pressure. Hundreds of statistical experts, under the direction of experienced coal men and transportation executives, have been at work on this problem in cooperation with the Geological Survey. It is expected that within a short time a definite announcement of the temporary quotas of the consuming states and of the producing sources from which each shall secure its supply may be made.

Representatives of the fuel administration and representatives of the railroads, named by Director General McAdoo, are now at work developing the phases of the plan which concern transportation, in order that the best results, both for the movement of coal and for transportation generally, may be secured.

The operation of the plan, so far as it has now been inaugurated, was explained to federal fuel administrators in the various states in a letter from United States Fuel Administrator Garfield. The latter, announcing the appointment of district representatives in several districts, said:

"As soon as district representatives are appointed, all State Administrators who may call upon them will be notified. Individual shippers and mines within those districts for which district representatives have been appointed will be notified to refer any orders or requests for shipment of coal made upon them by any member of the United States Fuel Administration to the proper district representative. State administrators accordingly should direct all emergency requests for fuel to the district representative in charge of the particular coal field from which the relief is to be obtained, rather than to an individual operator within that district. This will prevent shippers from receiving conflicting orders from different members of the Fuel Administration, and will insure more prompt attention to such requests because of their being made in the field by a man thoroughly conversant with the local situation and the available supply. No emergency requests should be made directly to Washington by state administrators unless the proper district representative has been unable to supply the necessary coal.

"In order that the bituminous coal supply of the country may be apportioned equitably among the different states, and among the various consumers in each state according to the relative importance of their needs, it is necessary that the work of the Fuel Administration in regard to the apportionment and distribution of bituminous coal be not limited to the relieving of emergency shortages. Accordingly, the available coal production of the country is to be apportioned among the various states, based upon previous consumption and the changes resulting from the entrance of the United States into the war. In order that cross hauling may be reduced to a minimum, and that each state may receive coals adapted to its needs, the particular fields from which each state shall draw its supply will be designated (by-product and gas coal excepted. When this budget is complete, the consumers of each state will be notified through the press that their coal must be obtained from certain specified fields. Producers will then be allowed to ship only to consumers in the states designated, and jobbers will be required to observe the same rules. In other respects the normal distribution of coal will go on without interference.

"State administrators, as soon as the tentative apportionment is complete, will be informed as to the particular fields upon which they may call for coal, and the quantities they may secure from each. When a state is currently receiving its full allotment of coal, all further needs must be met by reducing the quantity supplied to other consumers in that state. District representatives will be instructed to comply with any requests for coal made by designated state administrators up to the amount allotted to their respective states. Should any state have a demand for coal in excess of its allotment, this excess will have to be taken care of by a curtailment of consumption, unless a temporary or permanent readjustment of the allotment be made by Washington.

"The foregoing is a part of the new plan, details of which are being worked out as rapidly as possible, and will be announced to you as soon as they can be perfected. It should be clearly understood that it is not intended that the rights and duties of the state fuel administrators shall be lessened in any respect. On the contrary, the state administrators will retain all of their present responsibilities. The purpose of the plan is to facilitate the handling of emergencies and to define the limitation of supply. The only changes are in the creation of a new office in the field which will aid state administrators in promptly relieving emergency shortages, in reducing the number of cases which must be referred to Washington, and in making provision for insuring that each state will receive its proper *proportion* of the available coal supply. In all other respects, state administrators will continue to keep in touch with Washington as heretofore."

Mines Not Slowed Down

Fuel Administrator Garfield sent the following telegram to John P. White, while he was in attendance on the Miners' Convention, at Indianapolis, Ind.:

"Please state that order closing industries for five days will not slow down mines. I am making provision for that, and also include in my appeal request that labor be not allowed to suffer during five days or subsequent Mondays affected by order. I feel confident great mass of employers throughout country will regard this as necessary incident of the war to be borne by them, and not shifted to labor."

C. F. CLAY HEADS OIL SECTION OF NEW COLORADO CHAPTER

At the meeting held January 15, to complete the organization of the Oil Section of the Colorado Chapter of the American Mining Congress, C. F. Clay was elected chairman; T. A. Van Tilborg, vice-chairman; Frank E. Kistler, treasurer; and M B. Tomblin, secretary. Executive committee: C. F. Clay, R. S. Ellison, F. W. Freeman, George L. Nye, L. A. Van Tilborg, F. E. Kistler, and W. A. Matlock.

Article eight (8) of the By-Laws adopted, provides that "The dues of members of the Section shall be $12 per year—payable semi-annually in advance—in the months of January and July."

These dues are for the support of the Oil Section of the Chapter since the initial entrance fee and annual dues paid to the American Mining Congress are retained in whole by the national organization at Washington for its support.

Bunker Situation Clearing Up

Reports to the United States Fuel Administration indicate that the fuel situation has been completely relieved insofar as it affects the bunkering of ships carrying supplies to American forces abroad, and to the nations associated with the United States in the war. At northern Atlantic ports, on January 25, there were but forty-four vessels waiting. All of these were receiving their bunkers as rapidly as the coal could be put aboard. Less than thirty vessels were waiting for bunkers at southern ports.

Approximately 350,000 tons of bunker coal, on that date, were en route for northern Atlantic ports. The Fuel Administration believes that this movement will enable the Administration to keep abreast of the bunker situation. Approximately the same amount of coal was moving to southern ports.

More Cement Made

The year 1917 holds the record for production of Portland cement, a total of approximately 93,554,000 barrels having been manufactured, an excess over the former high production of 1913 of nearly 1,500,000 barrels, and over the production of 1916 of more than 2,000,000 barrels, or 2.2 per cent. The shipments in 1917 of approximately 90,630,000 barrels fell below those of the record year, 1916, by nearly 4,000,000 barrels, or about 4 per cent. Stocks at mills increased more than 2,800,000 barrels, or 33.7 per cent, as compared with 1916.

Higher prices for cement prevailed throughout the United States except at a few plants in the Pacific Coast district. Higher prices were, however, accompanied by higher costs of manufacture. Demand for cement was generally very good during the first five to eight months of 1917, but showed a decided falling off during the remainder of the year. Labor and traffic conditions were, for the most part, unsatisfactory.

West Virginia Operators Planning State Chapter with Handsome Club House to be Located in One of the Larger Cities of the State

A handsome clubhouse to be located in one of the larger cities of West Virginia is planned by several leading mining operators of the state who have recently come into the membership of the American Mining Congress.

This state chapter, it is pointed out, will bring together all mining men of the state, and will make as formidable an organization of the kind as to be found in the country.

Already a large portion of the leaders of the industry within the state have come into the American Mining Congress following a series of conferences which William M. Conrad, assistant secretary of the Congress, held with them during December and January, and it is expected that all will give their hearty support to the project now in hand for the headquarters club which it is planned to model after the Engineers Club of New York and the Merchants Club of Philadelphia.

Walter Prockter, of the Prockter Coal Company at Amherstdale, W. Va., and one of the most prominent operators in the Guyan Valley Field, is given the credit for originating the idea for the clubhouse feature, and leaders of the American Mining Congress have given their hearty sanction to the project.

In connection with the clubhouse it is proposed to have an exhibit of mining supplies which will be permanent, and will doubtless be located in a separate building. Here the large manufacturing companies will be invited to exhibit their products for the inspection of the mining men of the state, and thus a splendid revenue will be derived by the club, while, at the same time, the operators will be greatly aided by the personal inspection of samples of supplies at all times.

All of the conveniences of such a club as is planned will be afforded in the building. There will be a central lounging room, library, parlors, dining rooms and offices on the first floor, while on the second floor there will be an assembly room which can be used for meetings of operators, bringing together several hundred persons, as well as sleeping rooms for the accommodation of the members.

Mining men from all parts of the country will be welcomed to the clubhouse, and the thought of the originators of the idea is that a real clearing house for operators and others interested in the industry, such as bankers and other backers of mining projects, will be the result of their labors.

At the present time the West Virginia Coal Operators Association, with headquarters at Huntington, has just dissolved, and the leaders of the movement for the West Virginia State Chapter declare that the time is now ripe for the newly planned organization.

They point out that the present membership of the American Mining Congress in the state embraces the leading men in all parts of the state, and particularly in the Fairmont-Clarksburg, Guyan Valley, Kanawha, and New River fields, and with such a splendid nucleus as a start, success would seem but a matter of pushing the project.

George T. Watson, vice-president of the Consolidation Coal Company at Fairmont, has been one of the leading workers of the Congress for a number of years, during which he has participated in much notable effort for the advancement of the industry, it is pointed out, and his interest in all matters of the Congress has served to advance its projects splendidly.

Another leader in the industry in the state is President C. H. Jenkins, of the Central West Virginia Coal Operators Association at Fairmont, and a prominent member of the Congress, whose aid for the new project in hand is to be sought.

President A. R. Beisel, of the Guyan Valley Coal Operators Association, is also affiliated with the Congress, as is J. R. Thomas, president of the Kanawha Valley Shippers Association at Charleston, and these leaders will also be seen and their aid enlisted in the movement.

Recent members of the Congress in West Virginia who are expected to participate in the work for the new state chapter, include Messrs. R. A. Johnston, Rolfe M. Hite, Alex. R. Watson, Samuel D. Brady, John M. Wolfe, C. D. Robinson, J. A. Clark, Harry B. Clark, J. A. Clark, Jr., J. E. Watson, Jr., and M. M. Foster, all of Fairmont; F. M. Kirk, of the Sterling Coal Company of Cleveland, Ohio, which operates the Norway mine near Fairmont; J. M. Orr, Wilsonburg, W. Va.; Charles A. Storck, of the J. B. Jenkins Coal and Coke Co., of Buffalo, which operates mines at Mabie, W. Va.; H. B. Hartley, B. M. Chaplin, and J. B. Hanford, of Morgantown; Daniel Howard, of Clarksburg; George DeBolt, of the Red Rock Fuel Co., of Buckhannon; Isaac M. Scott, and E. T. Hitchman, of Wheeling; John A. Kelly, H. E. Jones, A. J. King, Frank Enslow, and W. H. Cunningham, of Huntington; J. H. Callahan, Mt. Clare; A. J. Dalton, Omar; H. C. Jones, McNear; John Laing, H. M. Bertolet, and W. M. Puckett, of Charleston.

COAL HEARING BRINGS OUT LITTLE NEW DATA

Many Testify Before Senate Investigating Committee—Both Operators and Miners Patriotic, Says Dr. Garfield.

While no great amount of information, not already known, was brought out by the Senate Committee investigating coal matters, it placed in readily accessible form much valuable data. Some extracts from the hearing follow:

Senator VARDAMAN. And the man who would take advantage of this emergency to make money ought to be restrained by that strong autocratic hand. Now the President has the power, and he ought to lay it on that individual who has not any more patriotism than a Gila monster.

Dr. GARFIELD. Well, Senator, I hope that nothing I have said would lead you to believe that I have found, either among the operators or among the mine owners, an unpatriotic disposition toward the sentiment you have just expressed.

Senator VARDAMAN. I know you have not, Doctor, and I realize that you have a very difficult problem to solve. I sympathize with you and I want to help you. But I do understand you to say, and I understand it to be the result of your investigations, that in every instance you have been forced to pay these men in order to get sufficient coal to meet the demands of the people.

Senator KENYON. To permit them a large profit.

Senator VARDAMAN. To permit them a large profit.

Dr. GARFIELD. Yes. I should object to employing the words "I have been forced to do it" if it is meant by that that the mines would have closed.

Senator VARDAMAN. I mean, circumstances forced you.

Senator KENYON. Would the mines have closed?

Dr. GARFIELD. The mines would not have closed. Men have said to me over and over again, when they have brought in their petitions: "If it is the purpose of the Government to require us, in view of the war, to operate at cost we will operate at cost and ask no profit; but we understand the Congress to have said that we are to have a fair profit, and under those circumstances we come to you with our cost sheets and show you that we are operating now at or below cost;" and I have, of my own free motion and because I understood it to be the law expressed in the bill, so far as it rested upon me, authorized a price that would include a fair profit, as the Lever Act says.

Senator VARDAMAN. Nobody objects to that.

Dr. GARFIELD. That is all that I have done, and all that they have at any time expressed to me as the thing I was expected to do.

Senator JONES. Doctor, while undoubtedly you have had many patriotic offers of operating concerns to operate at cost without any profit, if necessary, and if asked to do it, have you had any offers of new capital to go into the coal mining industry and operate at cost?

Dr. GARFIELD. They would not come to me, would they, Senator? I have not received them, because——

Senator JONES. Have you heard of any?

Dr. GARFIELD. In other words, have I heard of new mines being opened up?

Senator JONES. For the purpose of operating at cost.

Dr. GARFIELD. No.

Senator JONES. So, while patriotism might be a sufficient incentive for citizens who are already engaged in the industry to operate at cost or a low profit, yet there has been no evidence that patriotism alone would be a sufficient inducement to get new capital to go into the speeding-up of operating concerns, or the opening of new ones? You have not heard of any instances of that kind, have you?

Dr. GARFIELD. Very few. Some few new operations have been opened that I have heard about.

Senator JONES. For the purpose of operating at cost?

Dr. GARFIELD. No; no.

Senator JONES. Then, in order to get the increased production it will be necessary to offer a financial inducement under the existing system, in your opinion, will it not?

Dr. GARFIELD. I think the prices established do offer a sufficient profit, Senator, to encourage all necessary operations.

Senator JONES. At any rate, that was your purpose in fixing the price which has been fixed?

Dr. GARFIELD. Yes.

Senator JONES. I am just informed that the newspapers of the country are stating that it is the purpose of the Coal Administration to purchase all of the coal produced within these five days, and pay for it out of the public treasury. Can you give us any information as to the verity of that rumor?

DR. GARFIELD. That is an exaggeration of this, which is true: If it becomes necessary to keep the mines going, I would set up as a revolving fund permitted under the Lever Act, a sufficient amount to buy on thirty-day sight drafts, accepted by State fuel administrators, coal that would be sent forward for other than the preferred list, purchasing that coal at the President's price, and selling it for cash at the President's price, without profit. That transaction would be for the purpose of controlling coal which is distributed for other than the preferred list of things, so as to divert it the more easily for people who are cold, and for ships which need bunkers, and for public utilities, etc And if there is a surplus over, then to control the distribution so that it shall not be unfairly taken. I doubt very much if there will be any necessity for the use of that piece of machinery.

Dr. Garfield. This, I see, is the situation: We produce at the present time double the amount of crude oil that can by any possibility be refined. It takes a long time to erect refineries. It therefore goes without saying that we are burning up a great lot of valuable oils, kerosene and gasoline especially, in our fuel oil that ought to be taken out before that fuel oil is burned. Some of the heavy oils yield very little return in gasoline. Nevertheless, we are burning up, I suppose, millions of dollars worth of gasoline annually that we ought to be saving if we could refine it all. I speak with the more certainty because I know so little about oil, gentlemen; but that is the way it looks to me at first glance; and I suppose that a Government agency never will be able to handle the question of fuel oil satisfactorily until it is able also to place prices on all oil products, and, if necessary, to arm the President or his agents with power to do whatever is necessary in the matter of acquiring, building, controlling, and operating pipe lines and refineries.

Dr. Garfield. No, sir; I did not give them authority to do that.

The Chairman. But you gave them authority to get the coal while it was on the cars, or in transit still?

Dr. Garfield. Before it was delivered to the final consumer. Now, this situation arose: The business interests in several sections of the country, bringing the argument to bear on the State fuel administrator, said, "We will do anything necessary to aid the Government in the present emergency, but our State ought not to be asked to do these things, and allow other States to go on with these activities," and the State fuel administrator's argument was sound. If a thing of this kind was done, it ought to be done for the same kind of reason that it ought to be done generally with the manufacturing industries.

The Chairman. It was stated, I think, on the floor of the Senate that the original intention was to have this order apply only to New York. What is the fact about that?

Dr. Garfield. No; I never had it in mind to have it apply only to New York. This, Senator, is the fact: Some time ago I gave to each State fuel administrator authority to divert coal when necessary to relieve human suffering, going to the extent, if necessary, of shutting down factories, closing up any kind of an institution—in short, to do anything necessary to relieve that suffering.

The Chairman. That is, to divert the coal while it was in transit?

Dr. Garfield. Yes; on arrival, and before it was put into the——.

The Chairman. And you did not mean to give authority to go into a factory and take the coal that was once put in there?

Dr. Garfield. No; I did not.

The Chairman. You did not give them authority to do that?

Senator Kenyon. What was the particular trouble in Ohio that led the governor to seize the coal? Were conditions any worse in Ohio than in other States?

Dr. Garfield. I suspect conditions were worse in Ohio, for this reason: They were at least psychologically worse, and, I suspect, actually worse. The priority order very properly, in my judgment, sent the coal into the Northwest, where it had to go during the period when the Lakes were open, because the Northwest gets most of its coal in that way; and a good deal of coal must go into Canada every year in that way. To assure the Northwest of its supply the priority order No. 1 sent coal through Ohio very largely for the Lakes. Well, it gets on one's nerves, I can well understand, to see a coal supply going through in trainloads and not stopping and our bins empty, and the people of Ohio may well be excused for growing a bit nervous, as time went on, lest there be no end to that process and they be left without coal.

Senator Jones. What do you estimate has been the probable increased demand for coal during the war?

Dr. Garfield. It varies greatly. The best evidence that we have been able to secure in our office upon that point is, of course, based on statements from the manufacturing interests, and, yielding to that impulse in human nature which is in us all, they have placed their demands amply high, I suppose Discounting that as much as we can, I still think that in some places where war material is being manufactured intensively, the increased demand ranges from 33 1-3 per cent to 50 per cent, and, of course, in isolated cases 100 per cent. Some very interesting figures have been collected and will be available for the committee, by Mr. Lesher in the Geological Survey, as a result of an inquiry from a very large number of manufacturing establishments, and that inquiry shows that the increase this year is 6 to 10 per cent—in other words, much —below what I have indicated as true in certain instances, but that deals with the actual situation. It does not take into account what they would use if they could get the coal they would like to have. That deals only with the 550,000,000 tons that we shall produce, and not with the 600,000,000 tons that we ought to have produced, to meet requirements.

Senator Jones. Is it your judgment, then, that we ought to have produced about 600,000,000 tons this year?

Dr. Garfield. Yes.

Mr. Colver. The Trade Commission has offered as its first suggestion its solution for the fixing of price the pooling of all the coal at varying prices and the resale at a single price. Then it would be a true average price. That would seem to have all of the equities for the producers and would result without any question in substantially lowering the price to all consumers. We do not say now or at any time that that should have been done or might have been done, and without question when Dr. Garfield said that this was not the time to consider that because his administration came so late in the season, and so much harm had been done to the production at the time he took charge, he based that statement on complete information, and I should say that I would accept his judgment absolutely, although I do not think that mitigates at all against the equity or the fairness of the other plan when in a better season it could be applied, and I think myself that we are bound to come to it.

Senator LODGE. Does not the pooling and averaging of the price recognize the difference in the cost of mines necessarily?

Mr. COLVER. Undoubtedly that is its foundation.

Mr. COLVER. In the getting at anthracite costs, for instance, if a physical valuation were made in the anthracite field, which is very small compared with the bituminous coal field, and which is very much easier done because of the fewer number of companies, relatively, as well, we had a very carefully drawn estimate of the amount of money and labor that would be required for such a general investigation, with the idea of making once and for all a physical valuation, a complete valuation, of the anthracite industry. We found that it would require, putting all the men at work that could be used economically, and with the idea of speed, too, a year's time, and the expense would have been upward of $2,000,000—I think it was $2,100,000, or something like that—and I will say that that estimate was scanned very carefully; I mean there were no frills in it at all; it was just a straight piece of accounting; and because it involved such a very large sum of money, far more than the commission commands, and because other things seemed to be more urgent and pressing at this time, the plan was laid aside.

Senator JONES. If I have been able to understand things that have happened in the last few days, it seems to me that one of the greatest reasons for putting the railroads of the country into Government control is for the purpose of pooling receipts so that one railroad would not be pulling at cross-purposes so as to increase its revenues as compared with the revenues of other roads, and so that its equipment might be used in the most advantageous way; and it was necessary, to do that, to pool receipts. Now, is such a thing necessary in the conduct and complete Government control of the coal output?

Mr. SNEAD. That is the remedy suggested by Mr. Colver. I do not favor the plan of absolute pooling at this time. I believe in utilizing the existing agencies for production and distribution, directed by governmental authority as to the price and as to preference in shipments, as being nearer to the law of supply and demand and to regular channels than any other plan.

Senator JONES. You are proposing to have the Government specify the price, the preference of shipment, and the place of shipment.

Mr. SNEAD. Yes.

Senator JONES. You are proposing to exercise those means and methods of control now. Does not that practically control the destiny of the coal operators?

Mr. SNEAD. It does.

Mr. COLVER. I said there was no need of any more coal mines or the opening of new mines until the coal mines that we have and the miners that we have are working to capacity. That is all I said, and I said their capacity had not been reached. Dr. Garfield spoke of 50,000,000 of tons being short, and I should say that that is a very low figure, or a very conservative figure.

Senator LODGE. Of course, a part of this plan of price fixing which has been followed was to also stimulate production?

Mr. COLVER. Yes.

Senator LODGE. It has not stimulated production sufficiently, because there are 50,000,000 tons of a deficit.

Mr. COLVER. It has stimulated it right up absolutely to the limit of transportation, and that is what stopped the whole thing.

FUEL ADMINISTRATION MAY FALL UPON COAL HOARDERS

If any shortage of domestic coal develops, it is due to the individual hoarding of coal, and may result in its redistribution by the apportionment and distribution division of the United States Fuel Administration, it has been announced officially. Continuing, the announcement says:

"The production of anthracite coal for the present year will be 10 per cent in excess of the production of 1916. The demand is also greater. Figures are not available as to the increase of production in bituminous, but the total tonnage will be in excess of last year's output.

"It would appear, therefore, that any shortage of domestic coal would show hoarding—a practice the Fuel Administration strongly discourages as being a matter difficult to deal with, and regards such action as unnecessary, unwise and unpatriotic in this emergency. If the practice is indulged in to an extent as to cause the redistribution of coal, the matter will receive prompt consideration, and such action as may be necessary to the general good will be taken.

"The Fuel Administration has information and is conducting a general inquiry in the direction of the storing of coal by industrial consumers and various manufacturing establishments.

"Through the cooperation of both shippers and consumers, the Fuel Administration hopes and believes that it will not be necessary to take drastic action in the direction of suspending shipments to such plants."

NORWAY TO SECURE CERTAIN METALS FROM U. S.

War Trade Board Makes an Arrangement Which Will Allow Exports Sufficient for Scandinavian Country's Own Needs.

The War Trade Board has issued the following statement:

During its negotiations with Dr. Fridtjof Nanses, covering a period of several months, the War Trade Board had assured him that Norway's reasonable requirements of supplies would be met. Until very recently the Board was engaged in determining the commodities and quantities the United States could spare, her own and her associates' needs, and the requirements of the other neutrals being given due consideration. A conclusion has been reached with respect to a large number of these items, and a list was handed to Dr. Nansen

When it was found that further time would be required to obtain full information concerning the quantities of the remaining supplies needed by Norway, the Board deemed it fairer to state its willingness to furnish these commodities, the quantities to be hereafter fixed in accordance with Norway's necessities when ascertained.

The amount of lead to be exported during 1918 was fixed at 1,000 tons; the amount of tin at 80 tons; the amount of antimony at 12 tons, and the amount of asbestos at 350 tons. With regard to copper the Board says:

"The exportable surplus of copper controlled by the United States and its associates is not sufficient to meet all demands. But so far as the war needs of the United States and its associates permit, the Board will assist in every way in supplying the copper needed by Norway. The Board agrees to Norway's export of copper to the Central Powers only in compensation for copper received from those powers in manufactured form, plus 5 per cent to cover wastage. The United States cannot concede the right of Norway to export compensation copper to the Central Powers in the form of the copper contents of ores, which, with the exception of purple ore, are lean in copper but rich in sulphur. The sulphur contents of these ores greatly exceed in value their copper contents. Sulphur is a commodity of prime importance in the manufacture of explosives, and is of the greatest value as well to the United States and its associates as to the Central Powers. Its export in this form would, therefore, result in granting to the Central Powers under guise of compensation for copper, a large amount of valuable war material, which has nothing whatever to do with the principle of compensation. This Board is unwilling to permit such a result. No pyrites has, in fact, been exported by Norway to the Central Powers for a considerable period of time. The compensation copper exported to the Central Powers should be in the form of crude or refined copper.

"We respectfully insist that among the products which are not to be exported to the Central Powers, are antimony, bismuth, manganese, mica, nickel, tin, titanium, wolfram, and chrome, and this includes all ores and alloys of the commodities mentioned."

RIGHT OF APPEAL MAY BE EXERCISED IN FUEL PRICE FIXING

The United States Fuel Administration has made public a regulation adopting and approving all retail prices and price margins fixed by Local Fuel Administrators and Local Fuel Committees throughout the country. The regulation was made public because of many apparent misunderstandings as to the method by means of which retail prices, fixed by local fuel officials, are finally approved by the United States Fuel Administration. A portion of the order reads:

"The Fuel Administrator hereby orders and directs that all retail prices and retail gross margins heretofore and hereafter designated by any State Fuel Administrator or by any local committee with the approval of the State Fuel Administrator, who appointed such committee, are hereby adopted and fixed by the United States Fuel Administrator as the retail price or retail gross margins for the sale of coal in the locality or by the dealers designated by such Fuel Administrator or Local Committee, subject, however, to modification either by the State Fuel Administrator making or approving the same or by the United States Fuel Administrator; and further subject to all orders, rules and regulations heretofore or hereafter issued or made by the President of the United States or the United States Fuel Administrator or by any State Fuel Administrator affecting the sale shipment, or distribution of coal;

"And be it hereby further ordered that any one or more persons who feel aggrieved by the prices heretofore or hereafter designated by any State Fuel Administrator or by any Local Committee may appeal to the United States Fuel Administrator to have such designation of prices or gross margins modified by forwarding to the Legal Department, United States Fuel Administration, at Washington, a verified written petition setting forth in detail the facts relied upon by such petitioner, and by forwarding a copy of such patition to the State Fuel Administrator who made or approved the designation of prices or gross margins which it is sought to have modified. Pending the determination of such appeal, and until the decision of such appeal by the United States Fuel Administrator, such designated prices or gross margins shall remain in full force and effect unless otherwise ordered by the State or United States Fuel Administrator."

ALASKAN COAL FIELD IS DIVIDED INTO LEASING UNITS

Tracts Laid Out in Nenana Field Range From 160 to 1,664 Acres in Extent

Secretary Lane, of the Interior Department, announced, January 19, that the work of surveying and dividing into leasing units the more accessible part of the Nenana coal field, Alaska, has been completed, and that as soon as the data is printed the lands that have been divided into leasing blocks will be offered for lease under the provisions of the Alaska coal land leasing law, Act of October 20, 1914 (38 Stat., 741). Announcement of the offer for lease is promised in the near future when full publicity of the leasing offer will be given through the press and the leading coal trade journals.

The area to be offered comprises approximately 19,000 acres of land divided into twenty-three blocks or tracts, ranging from 160 to 1,664 acres, each block being in such form as is believed to permit the most economical mining. A lease, under the law, cannot exceed 2,560 acres, and may include one or more contiguous leasing blocks.

The lands to be offered for leasing constitute the more accessible and immediate minable part of the surveyed lands of the Nenana coal field, and are in T. 11 S., Rs. 5, 6 and 7, and T. 12 S., R. 7 W., Fairbanks Meridian. They lie in the valley of Lignite Creek, a tributary of the Nenana River, extending up the creek from its mouth for about 12 miles. The mouth of the creek is on the approved surveyed route of the Government railroad from Seward to Fairbanks, at a point about 364 miles from the coastal terminus at Seward, and about 106 miles from the inland terminus of the railroad at Fairbanks. While it is not possible to state when the railroad between Fairbanks and Seward will be finished, it is believed that the summer of 1918 will see the portion of the road completed from the coal field to Tanana River, thus making this coal available for barge shipment to Fairbanks and other river towns.

The geologists who have examined this field report that the coal occurs in many beds of various thicknesses up to thirty or thirty-five feet, there being at least twelve beds of workable thickness, of which probably at least six are over twenty feet thick. The coal-bearing rocks are only gently folded, and no intrusive rocks are known to cut them.

The coal of this field is lignite of fair grade While it is not suitable for export, it will furnish a valuable and much needed fuel in portions of interior Alaska that are now dependent on a scanty and expensive supply of wood. The uses of Nenana coal will probably be as locomotive fuel on the Government railroad, for power and thawing at the mines in Tanana Valley, as domestic fuel in Tanana Valley, and as river-boat fuel on local Tanana River boats, and possibly on some of the Yukon steamers. It is desirable that Nenana coal should, if possible, be used on the greater part of the railroad, rather than the higher grade Matanuska coal, because the heavy freight traffic will be northbound, leaving southbound empties available for hauling coal. The Nenana coal field is nearer the summit of the Alaska rangs than any known coal south of the divide.

STATE ADMINISTRATORS EXPECTED TO INSURE EQUITY IN DISTRIBUTION

State fuel administrators have been instructed by the United States Fuel Administrator that they have complete authority in their respective states to enforce the proper distribution of the coal supply at proper prices.

Under these instructions the state administrators will have full authority to make all regulations regarding local distribution. Specific authority will be conferred by the Federal Fuel Administrator in cases where orders or regulations may require enforcement by legal authority. The instructions to state administrators said, in part:

"The most important duty of the state fuel administrator is to see that the supply of fuel in his state is equitably distributed at fair prices. It is the intention of the United States Fuel Administrator to see that the state administrator is provided with the necessary authority to accomplish this result.

"The state administrator has authority to promulgate reasonable regulations regarding local distribution. He may require dealers to deliver only a limited quantity to any one customer. He may require consumers to state their supply on hand and their requirements. He may take measures to prevent hoarding. The state administrator is authorized to proceed with measures of this character, and should have no difficulty in making them effective by force of public opinion.

"In the great majority of instances the state administrator will be able by the use of his influence and with the support of public opinion to obtain action with the consent of the parties. If this is not possible, he should telegraph at once to the United States Fuel Administrator the action he recommends and request the necessary authority."

Assistance Appreciated

The general superintendent of a large coal company writes The Mining Congress, in part, as follows:

"I wish to tender our cordial thanks for your promptness and courtesy in the handling of our request and hope that the final decision rendered by the Fuel Administration will mean a fruition of our hopes.

"Your members may not be in position to ask your services more than once in several years but when they do need such services they need them as the Texan needed his gun."

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STORROW GIVEN WIDE POWERS TO DEAL WITH COAL MATTERS IN NEW ENGLAND STATES

J. J. Storrow, of Boston, the New England Fuel Administrator, has been authorized to arrange for a supply of coal, at the President's prices, in less than car-load lots for cases of immediate and pressing exigency, under arrangements by which the Fuel Administration subsequently will return to the parties from whom the coal is supplied the like amount and at the same prices.

To insure the uninterrupted operation of public utilities and important industrial plants, Mr. Storrow is authorized to permit sales of coal on storage in New England at wholesale upon the same basis of prices as that prescribed for sales by retailers in the order of the Fuel Administration dated October 1, 1917. In both these classes of cases, the New England Fuel Administrator is authorized to act without previous consultation with the Fuel Administration in Washington.

Provision is also made in the order for approval of Mr. Storrow, after communication with Washington, of sales in certain cases of coal owned by jobbers in order to meet cases of real necessity. The prices of coal in these cases must be approved by the New England Fuel Administrator, and must not exceed cost plus the jobbers' margin prescribed in the President's order relative thereto.

It is believed that there is in New England, in the hands of certain dealers and consumers, surplus coal from which the owners would be glad to supply the needs of less well-stocked users if they could do so without loss to themselves. This order clothes Mr. Storrow, as New England Fuel Administrator, with power to authorize such sales, and to relieve many, if not all, cases of shortage in the important industrial plants, public utilities, and domestic requirements.

ROCKY RIDGE WAGE DISPUTE IS ADJUSTED SATISFACTORILY

Operators and miners of the Rocky Ridge district comprising what is known as the Broad Top field in Pennsylvania reached an agreement in their wage controversy whereby the matter was satisfactorily adjusted.

The agreement signed provides that the day wage rate of the men shall remain the same as other Central Pennsylvania fields—$5 a day for inside labor and the general scale for outside day labor. The mining rate will be ten cents above that of other Central Pennsylvania fields or $1.11\frac{3}{20}$ per ton. The latter rate is to be effective until April 1 when it is to be withdrawn, making a new wage rate on the basis of the balance of Central Pennsylvania territory. On April 1 the rate will be $1.01. This agreement affects 2,300 miners in Bedford and Huntingdon counties.

Working on Fuel Conservation

The Conservation Division of the United States Fuel Administration is devoting much time to analyzing all the suggestions for the conservation of fuel which are coming from all parts of the country. The analysis is aimed to discover not only the largest wastage of fuel, but those large consumptions of coal for nonessential purposes in which limitation is most available and will produce the quickest results.

Many activities which involve large consumptions of fuel and many methods of using this fuel which are perfectly legitimate in times of peace, will be found susceptible of changes which involve very slight sacrifice of material interests, but offer opportunity for considerable savings of fuel.

Campaigns for the saving of coal in domestic heating, lighting, and cooking, as well as in the largest industrial establishments, are well under way.

WYOMING OIL MEN HAVE ROUSING BANQUET

Enthusiasm Over State Chapter Shown at Gathering of Prominent Men at Casper.

Editor's Note.—*The following report from John T. Burns, the western secretary of the American Mining Congress, was not submitted for publication, but it tells so concisely just what happened that we are printing it as received.*

By John T. Burns

I take pleasure in submitting herewith report of the organization work in connection with the Wyoming Chapter. Together with Mr. Arthur Ponsford, and oil attorney of this city, whose calm and well-balanced statement regarding the Walsh-Pittman Bill had much to do with controlling the local situation, I arrived in Casper a week ago Sunday to attend what was originally planned as an organization meeting to settle the details relative to a state conference of oil men the following Thursday. By telegraph and long distance phone I had organized a working committee, which committee had called together a few local oil men to meet me in the lobby of the Midwest Hotel. By the assembly hour, 10 o'clock, we had too many for a convenient session in the lobby, and retired to the nearby offices of an oil well supply company. Before we could call to order, the place was jammed and oil men still coming. We hurriedly arranged for a meeting in the Circuit Court Room at the Court House, and retired to that building. About seventy-five were present, and instead of talking over organization, we had a nice talk from Mr. Ponsford, and from some of the local oil men relative to the Walsh-Pittman Bill. At 12.30 we adjourned to 2.30, having appointed a Resolutions Committee. After re-convening we were in session constantly until 5.30, so that you can see there was great interest. The Organization Committee then authorized me to call the convention, and gave me a list of committee men desired in each of the thirty-five towns in the State where oil, coal, and iron interests are represented. I protested that such procedure would be rather expensive, but was promptly told that that was Casper's way of doing things, and what they wanted was a state convention. From Sunday, at dinner time, until Monday night, after dinner, I remained in my room practically all the time, calling and answering long distance communications. Tuesday and Wednesday were spent helping with the local plans, then working out a program. We had a bear of a convention on Thursday, filling the Circuit Court Room all day, beginning at 10 o'clock. At 5 o'clock we adjourned to the grill room of the Henning Hotel, and one hundred and forty hale and hearty men, representing twenty-one towns and cities of Wyoming, ate and drank $750 worth of eats and drinks, and listened to some of the best speeches that I have ever heard at a dinner. Senator Kendrick talked for just one hour of his experiences on the battle line in France. His talk changed the spirit of the gathering from levity to seriousness, and I guess that was one reason there was some Burgundy left in the glasses. We remained at the dinner from 5 o'clock until 9.20, when it was announced that the Burlington train for Denver (which had been disabled by official order two or three days previously) had made all repairs and would pull out in ten minutes. Everybody was jerked to the train in automobiles, waved farewell by the local boosters, and there closed one of the best small conventions I have ever had anything to do with. We closed the chapter with 105 recorded members (and three signed up in Denver this week), and they have set the limit (as Frank Curtis told me yesterday) at 500, and intend to have a State Chamber of Commerce which will put Wyoming on the map for keeps.

California Minerals Maintain High Levels

The statistical division of the California State Mining Bureau, under the direction of Fletcher Hamilton, State Mineralogist, has made a careful estimate, from information now available, of the mineral production of the State for the year 1917. This estimate is in advance of the actual figures which will be available later. The indications are that the total for all products, metallic and nonmetallic, will reach a figure approximating $142,000,000, as against a total of $127,901,610 in 1916, when for the first time in the history of the State it exceeded one hundred millions in value.

The major portion of the increase is due to petroleum, the output of which increased about 7,000,000 barrels in quantity, and at least 25 per cent in price per barrel. Gold fell off slightly on account of the labor scarcity and the higher cost of supplies. Of the other important metals: tungsten and zinc apparently decreased about one-half in value; silver a slight decrease in amount but an increase in value because of higher prices; copper increased to about 57,000,000 pounds and $15,000,000; lead more than doubled in value; quicksilver increased to at least 23 000 flasks and $2,200,000. The price of this last-named metal closed the year on a firm market at $115 per flask. As to chromite, magnesite, and manganese, it is too early yet to obtain definite data as to the amounts, but all three will show material increases, and it seems likely that their total value will reach at least $3,800,000, an increase of over $1,000,000

Cut Down Passenger Service

The Fuel Administration has had brought to its attention the possibility of saving a considerable quantity of coal in the larger cities by cutting down the suburban steam railroad passenger service during the non-rush hours.

IRON ORE PRODUCTION HOLDS OWN IN 1917

Average Value of Ore Increases to $3.12 Per Ton During Year Recently Closed

The iron ore mined in the United States in 1917 amounted to about 75,321,000 gross tons, compared with 75,167,672 tons in 1916, an increase of 0.2 per cent. The figures for the two years are so nearly the same, however, that when the final returns are received from all the producers the actual quantity mined in 1917 may prove to have been less than that mined in 1916. The shipments from the mines in 1917 are estimated at 75,649,000 gross tons, valued at $236,178,000, compared with 77,870,553 tons, valued at $181,902,277 in 1916, a decrease in quantity of 2.9 per cent, but an increase in value of 29.8 per cent. The general average value of the ore per ton at the mines for the whole United States was, therefore, $3.12 in 1917, as compared with $2.31 in 1916. The stocks of iron ore at the mines apparently decreased from 10,876,352 gross tons in 1916 to 10,560,000 tons in 1917, or 2.9 per cent.

To obtain these statistics preliminary figures received from producers of nearly 95 per cent of the normal output of iron ore were compiled under the direction of Ernest F. Burchard, of the United States Geological Survey, Department of the Interior, and were supplemented by estimates covering the remainder of the output.

About 85 per cent of the ore mined in 1917 came, as usual, from the Lake Superior district, mined about 63,961,000 gross tons and shipped 61,275,000 tons, these quantities representing a very slight increase and a decrease of 3.2 per cent, respectively, compared with 1916. The shipments of iron ore by water from the Lake Superior district, according to figures compiled by the Lake Superior Iron Ore Association, amounted in 1917 to 62,198,901 gross tons. It thus appears that the iron-mining industry in the Lake Superior district has been able to bear the strain of the war demand, but not to duplicate the great record of ore shipments made by Lake Superior in 1916, which amounted to 64,731,198 gross tons. The slight falling off, it is understood, was due to less favorable weather for shipping early and late in the season of 1917, rather than to inability of the Lake fleet to handle the ore mined.

The South mined and shipped more than 8,100,000 tons of iron ore, the bulk of which was produced in the Birmingham district, Alabama, but the iron mines of Georgia, Tennessee, North Carolina, and Virginia contributed about 1,100,000 tons to the total.

The Northeastern States—New Jersey, New York, and Pennsylvania—increased their production slightly as compared with 1916, and shipped to blast furnaces approximately 2,416,000 tons of ore. This quantity, however, represented a decrease of 4.1 per cent as compared with the shipments in 1916.

Colorado, New Mexico, and Wyoming, the principal iron ore producing States in the West, are estimated to have mined and shipped approximately 666,000 tons of iron ore, compared with 717,660 tons in 1916, a decrease of 7.2 per cent.

Other States, such as California, Connecticut, Iowa, Maryland, Massachusetts, Missouri, Nevada, Ohio, Utah, and West Virginia, in which there are small iron-mining operations, are estimated to have shipped about 144,000 tons of ore, compared with 134,002 tons in 1916, an increase of 7.5 per cent.

The imports of iron ore for the eleven months ending November 30, 1917, according to the Bureau of Foreign and Domestic Commerce, Department of Commerce, amounted to 913,500 gross tons, so that probably the imports for the whole year reached 988,500 tons, compared with 1,325,736 tons in 1916.

GOVERNMENT SPECIALISTS WELL KNOWN TO MINING MEN

R. R. Hornor, one of the Bureau of Mines' mining engineers, was born at Clarksburg, W. Va. His early education was obtained in the public schools at that place. Later he attended Wesleyan College, at Buckhannon, W. Va. He then spent two years in the Lehigh Preparatory School, after which he took the metallurgical course at Lehigh University. He was graduated from the latter institution in 1899 with a B. S. degree in metallurgy. He then took a post-graduate course at the Columdegree from that institution.

Following the completion of his schooling, Mr. Hornor went to Mexico, where he was connected with the Mexican Copper Company, at Ramos, in the state of San Luis Potosi. After two years with this company, he went with the Cia. Minera de Peñoles, at Mapami, Durango, where he was assistant superintendent of the large smelting plant operated by that company. After a year at Mapami, Mr. Hornor went to South Africa as a member of the staff of the South Africa Consolidated Goldfields, Limited, as underground manager. He directed the development of deep levels in these mines for five years. He then severed his connection with this company to do consulting work for Andrew Robertson, who at that time owned the Latouche mines, in Alaska. Mr. Hornor made extended examinations of properties in Alaska, the Northwest, and in Mexico for Mr. Robertson. A year ago he joined the staff of the Bureau of Mines, and has been engaged since that time in making examinations of low-grade properties in Utah, has examined the black sands of the Northwest, and has just completed an examination of the tin deposits in the Black Hills.

NOTED MINING ENGINEER MADE OIL ADMINISTRATOR

M. L. Requa Chosen to Handle Petroleum Matters Was Consulting Engineer for Bureau of Mines.

United States Fuel Administrator Harry A. Garfield has announced the appointment of M. L. Requa, of California, to handle oil matters for the United States Fuel Administration. Mr. Requa has full charge of the activities of the Fuel Administration in connection with oil, under the direction of Fuel Administrator Garfield.

Since the organization of the United States Food Administration, Mr. Requa has been an assistant to Food Administrator Herbert Hoover. His transfer was arranged with Mr. Hoover, who consented to the change because of Mr. Requa's qualifications for his new position. Mr. Requa leaves the food Administration only because it is believed his services are of more value to the Government in connection with oil.

Mr. Requa is a consulting engineer to the Bureau of Mines on petroleum, is vice-president of the American Institute of Mining Engineers, and is a member of the council of the Mining and Metallurgical Society of America. He has been connected at various times with the oil industry in California.

The first activity of the new oil division of the Fuel Administration will be to undertake an investigation of the entire petroleum situation and to recommend to Dr. Garfield such action as may be necessary to handle petroleum matters.

A meeting was held early in January at the office of the United States Fuel Administrator, at which the Petroleum War Service Committee met in conference with Dr. Garfield and M. L. Requa, the recently appointed head of the oil division of the Fuel Administration.

Both Dr. Garfield and Mr. Requa stated it was the desire of the Fuel Administration that the men representing the petroleum industry should cooperate fully with and give to the Fuel Administration the benefit of their knowledge, to the end that whatever control is to be exercised shall be only after full knowledge of all phases of the problem and of an intelligent and constructive character.

It was further stated that the appointment of Mr. Requa at this time was not because of any new conditions, but that fuel oil, having been included among the duties assigned to Dr. Garfield by the President, the subject had been reached in the natural course of events, and that a departmental head in the person of Mr. Requa had been appointed.

It was indicated that it was not the intention of the Fuel Administration to take up at present the question of price-fixing, but that a general survey of the whole industry would be made in cooperation with the various branches thereof, with a view to determining what action the Government might take to assist in supplying more effectively the necessary fuel for war purposes and to provide and arrange for the supplies of fuel oil necessary to the various industries at home.

It is also the intention of the Administration to study the situation, with a view to coordinating by voluntary agreement the manufacture and distribution of petroleum products and to stimulate the production of crude oil, so that all needs shall be fully met at fair and just prices.

Mr. Requa stated that it was his desire that the Petroleum War Service Committee should for the present continue its activities without change, to the end that there should not be any interruption in the continuous flow of petroleum products to the Allies or for our domestic uses.

A few days following the appointment of Mr. Requa, rumors which were in circulation resulted in the issuance of the following statement from the Fuel Administration:

"The hysterical outcry that has been raised from various sources since the announcement by the Fuel Administrator of the appointment of M. L. Requa as head of the newly created oil division of the Fuel Administration is without reason or is deliberate propaganda for the purpose of creating unrest. If the latter, it may be classed with similar rumors of obviously pro-German origin which have been circulated from time to time regarding the activities of the Food Administration, concerning which the most absurd rumors have been set afloat without any foundation in fact.

"If it is due to any hysterical fear on the part of the petroleum industry or any of its representatives that ill-conceived plans will be promulgated, a careful reading of the statement put out Saturday afternoon, following a conference with the Petroleum War Service Committee, would be instructive and illuminating. The members of the committee might be interviewed to advantage by any timid individual expecting the overnight destruction of the industry. Vicious propagandists, of course, cannot be reassured in this way, as their motive is of entirely different character.

"The fact that a director of the oil department of the United States Fuel Administration has been appointed should be taken as a matter of course, as the supervision of fuel oil is part of the duties assigned to Dr. Garfield, the Fuel Administrator.

"The conflict of views is amusing, inasmuch as prophecies have been made on the one hand that gasoline would sell at 10 cents a gallon, and on the other hand that it would sell at 50 cents. The conservative citizen might strike the happy medium and optimistically conclude that governmental control does not necessarily mean disaster."

COALLESS DAYS NECESSARY, SAYS GARFIELD STATEMENT

Fuel Administrator Defends His Drastic Order and Reveals Some Things as to Industrial Conditions

In an attempt to justify his order providing for coalless days, Fuel Administrator Garfield issued the following statement:

"The order suspending temporarily the operation of industrial plants in portions of the United States is drastic. Yes, war is drastic. This war is the most extensive and involves greater sacrifices than any war heretofore. The American people, led by the President, entered this war deliberately. They are staking everything for the realization of a great ideal, and the ideal is practical. We know that democracy must be made a reality at home as well as abroad; that its benefits must be shared by all and its sacrifices borne by no single class.

"Capital and labor are embarked in this war because all Americans are in it, and the American spirit cries out against the least suggestion that the burden be shifted to the backs of any one class, least of all of labor, for labor has less financial ability to meet the prolonged hardships of war than capital. We are realizing the truth now as never before that capital and labor are not two, but one. Their problems present merely two aspects of the same vital question. The unselfish and patriotic impulses and the calm look ahead will lead the country to approve of the order now in force.

"Industry is in an unbalanced condition. We lack many essentials—food, clothing, fuel. We have piled up enormous stores of things not essential to life but very essential to war. We have piled them so high on our docks and in our storehouses that the ships available cannot carry them away as fast as they pile up. For lack of bunker coal, held back by traffic congestion, the number of ships in our harbors increases menacingly.

"The food supply is threatened to an even greater degree than the fuel supply. This condition is in large part due to the congestion that at many points holds the loaded cars in its grip.

"To single out industries not engaged to some extent in war manufacture is to select industries which in the aggregate will bring relief only if suspended indefinitely. To require all industries except a comparatively small part to cease for a few days quickly accomplishes the desired result and permanently injures none. The order, as it stands, puts all industry on an equal footing, favoring none and avoiding unfair competition; but this reason alone is not sufficient. This reason, plus the fact that the order will put coal in the empty bins of the people, will save coal, will aid in breaking up congestion of traffic, and in furnishing an adequate supply of coal to the people who need it and to the ships which cannot sail without it—these are sufficient reasons, and justify the order.

"Only those industries producing necessary war material that can be promptly delivered are permitted to operate during the suspension period. To permit industries with a coal supply on hand to operate would allow many of the least essential to continue while some of the most essential would be compelled to stop. Moreover, to allow those fortunate enough to possess a coal pile to continue would result in adding to the traffic congestion, and unless they also are suspended at a later period the needed saving in consumption of coal would not result. To have delayed the application of the order would only have added to the congestion. It is no condemnation of industry to say that each would have striven to the utmost to increase its supply of coal and other raw material during the days prior to the application of the order.

"The most urgent thing to be done is to send to the American forces abroad and to the Allies the food and war supplies which they vitally need. War munitions, food, manufactured articles of every description, lie at our Atlantic ports in tens of thousands of tons, while literally hundreds of ships, waiting, loaded with war goods for our men and the Allies, cannot take the seas because their bunkers are empty of coal. The coal to send them on their way is waiting behind the congested freight that has jammed all terminals.

"It is worse than useless to bend our energies to more manufacturing when what we have already manufactured lies at tidewater, congesting terminal facilities, jamming the railroad yards and sidetracks for long distances back into the country. No power on earth can move this freight into the war zone, where it is needed, until we supply the ships with fuel.

Once the docks are cleared of the valuable freight for which our men and associates in the war now wait in vain, then again our energies and power may be turned to manufacturing, more efficient than ever, so that a steady and uninterrupted stream of vital supplies may be this nation's answer to the Allies cry for help.

"It has been excess of production in our war-time speeding up that has done so much to cause congestion on our railroads, that has filled the freight yards to overflowing, that has cluttered the docks of our Atlantic ports with goods waiting to go abroad. At tidewater the flood of freight has stopped. The ships were unable to complete the journey from our factories to the war depots behind the firing line.

"Added to this has been the difficulty of transporting coal for our own domestic needs. On top of these difficulties has come one of the most terribly severe winters we have known in years.

"The wheels were choked and stopped; zero weather and snow-bound trains; terminals congested; harbors with shipping frozen in; rivers and canals impassable—it was useless to continue manufacture and pile confusion on top of confusion.

"A clear line from the manufacturing establishments to the seaboard and beyond—that was the imperative need. It was like soldiers marching to the front—the men in the foremost ranks must have room to move.

"More than a shock was needed to make a way through that congestion at the terminals and on the docks so that the aid so vitally needed by the Allies could get through.

"The incidental effect of this transportation situation on coal production has been disastrous. There is and always has been plenty of fuel, but it cannot be moved to those places where it is so badly needed while railroad lines and terminals are choked. Throughout the coal fields scores, even hundreds, of mines are lying idle because of railroad inability to supply the cars to carry away their product. Coal mines cannot operate without cars. Cars cannot be supplied while the railroads are crippled by the present freight congestion, which keeps idle cars lying useless in the freight yards.

"In the past week the production of coal has been disastrously reduced. Reports in some cases have shown 90 per cent of the mines in certain fields closed completely for lack of cars.

"This is war! Whatever the cost, we must pay it so that in the face of the enemy there can never be the reproach that we held back from doing our full share. Those ships laden with our supplies of food for men and food for guns must have coal and put to sea."

DOMESTIC USERS OF GAS MUST BE SUPPLIED FIRST

Natural gas must be supplied first for domestic purposes. This was the substance of insructions issued by the Fuel Administration to the United Fuel Gas Company, which operates in the West Virginia Gas Fields and supplies natural gas to a large number of cities, including Louisville, Lexington and Frankfort, Kentucky. Reports from the latter cities to the Fuel Administration indicated that the gas supply in the three Kentucky cities had been practically shut off through diversion to Portsmouth, Ohio, to supply steel plants working on Government contracts.

When the matter was called to the attention of the Fuel Administration, instructions were sent to the gas company to the effect that gas for domestic purposes takes precedence over that for manufacturing and other purposes.

To Operate on Coal Saving

A nation-wide campaign for economy in the use of coal among steam plants will be undertaken by the United States Fuel Administration. The campaign was determined upon the following a conference of representatives of the Fuel Administration, the Bureau of Mines and the American Society of Mechanical Engineers held in New York.

Organized Wood Fuel Companies

In the task of conserving coal by substituting the burning of wood for fuel, wherever practicable, the County Fuel Administrators of Tennessee have set an example in practical efficiency that is certain to stimulate the Fuel Administrators of other States.

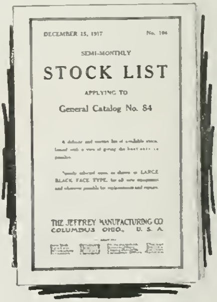
In practically every county of Tennessee, War Fuel Companies have been organized. In some counties there are two companies. These are organized by patriotic local citizens, the capitalization of each company varying with the situation; the average capitalization being $1,500. Each local company has a manager who superintends the cutting and the selling of wood.

Jeffrey Stock List

The Jeffrey Manufacturing Co., which handles coal mining machinery, electric locomotives, elevating, conveying and crushing machinery, writes THE MINING JOURNAL as follows:

"In order to give our customers the best possible service, especially during such times as these, we have prepared a stock list showing material actually on hand. This is somewhat of an innovation in so far as it applies to manufacturers of elevating, conveying and power transmission machinery.

"The stock list is issued semi-monthly, and contains a complete list of all available stock covering chains and attachments for elevators and conveyers, malleable iron and steel elevator buckets, belt conveyers, spiral conveyers and fittings, take-ups, bearings, hangers, pulleys, etc., together with approximate shipping dates for various materials.



DECEMBER 15, 1917 No. 104

SEMI-MONTHLY

STOCK LIST

APPLYING TO

General Catalog No. 84

THE JEFFREY MANUFACTURING CO
COLUMBUS OHIO. U. S. A.

"The advantage to the customer is readily appreciated as it enables the trade to order materials which are in stock, thereby getting prompt shipment, and the further advantage of eliminating extra cost which is necessary when special equipment is produced.

"The stock list will be sent regularly to all who desire it upon request to any of our branch offices, or to the home office at Columbus, Ohio, 958 North Fourth Street."

TO USE WATERWAYS MORE IN DISTRIBUTION OF COAL

Plans for diverting a part of the tremendous coal traffic from the overworked railroad system of the country to inland and coastwise waterways are under consideration by the United States Fuel Administration. It is expected that a material saving in cars and motive power can be affected by utilizing water transportation for coal supplies whenever possible.

Maj. Gen. William S. Black, Chief of Engineers of the Army, in charge of river and harbor improvement work, is cooperating with the Fuel Administration in the water transportation plans. General Black has submitted to L. A. Snead, in charge of fuel supplies and distribution for the Fuel Administration, the results of an investigation into the terminal facilities and equipment available for the transportation of coal by water. The investigation showed clearly that a large saving in railroad transportation can be effected by utilizing all of the water transportation facilities.

The shipment of coal from eastern fields to New England is one of the most striking instances of the opportunity for saving. At present large quantities of coal are shipped from Pennsylvania and West Virginia fields direct to New England points by rail. Facilities are available whereby practically all of this coal could be sent by a much shorter rail haul to tidewater at Baltimore, Philadelphia and New York and thence by barge to New England ports. The longer rail haul keeps the coal in a much-needed car for a week or more, while the shorter haul could be made in about one-half of that time.

A detailed report is in the course of preparation on all cases where long rail routes are being used in preference to available water routes, and the Fuel Administration will undertake to see that shippers take full advantage of water transportation wherever possible.

No Independent Action

H. A. Garfield, the United States Fuel Administrator, has issued the following statement:

"To further assure continuous and increased production of coal during the period of the war, the United States Fuel Administrator directs that no independent action be taken by either the operators or mine workers to force any settlement in dispute without submitting the matter in controversy to the United States Fuel Administrator. This applies to all districts, whether joint relations have been established or not. Where joint relations have been established, the regular machinery prescribed in the contract for adjustment of disputes shall first be used and remedies exhausted. Work at the mines shall continue without interruption pending the final settlement of the question in the manner indicated."

Harris & Ewing

CHARLES B. HENDERSON

The New Senator from Nevada

Chicago Gets More Smokeless Coal

Shipments of coal into Chicago have been increased as a result of an order issued by the United States Fuel Administration to operators in the Pocahontas field in West Virginia calling for supplies of low volatile coal used in large quantities in that city. The orders to operators called for shipments of 50 per cent of the contracts which they had for supplying that city. This action was taken following the recent visit to Washington of Federal Fuel Administrator Raymond Durham, of Chicago, and the showing made by him that further curtailment of shipments of this grade of coal would result in serious impairment of activities among a number of industries.

New Prices for Tennessee Coal

An increase of 10 cents per ton in mine prices for coal produced in middle Tennessee has been ordered. The order puts the middle Tennessee coal operators on the same price basis as the coal operators of eastern Tennessee. The middle Tennessee operators have for some time been seeking the price increase. The new prices, which affect the counties of Bledsoe, Grundy and White, are as follows: Run of mine, 2.40; prepared sizes, 2.65; slack, 2.15. The old prices were: Run of mine, 2.30; prepared sizes, 2.55; slack, 2.05.

ASKS CONGRESS FOR A DIRECTOR OF MINERALS

War Minerals Committee Submits Draft of Bill, Which Is Being Held Up to Hear from the Mining Industry.

A bill providing for a director of minerals is before the House Committee on Mines and Mining. The bill has been considered by the committee, and a number of amendments have been made. During the consideration of the bill, however, protests began to come in from the mining sections, and Representative Foster, the chairman of the committee, decided not to introduce the bill until time will have been given to analyze the merit of the objections which have been raised. The bill, as submitted to the committee, was formulated by the War Minerals Committee. That committee has issued an extended statement, giving its reasons for believing that such a measure is necessary. The statement from the War Minerals Committee is as follows:

"Successful prosecution of the war demands that prompt measures be taken to stimulate and direct the mining industry. Adequate supplies of ores and their products can be assured for a period of several years only by a constructive program, which must be formulated at once. At present we rely chiefly upon foreign sources for many essential minerals, although in marked instances we have undeveloped resources ample to meet any contingency. Such dependence will lead to shortages, which retard military preparations and inevitably demand costly diplomatic and trade concessions. Further, a burden is imposed upon our shipping, which is now in urgent need of relief. Of other minerals we must supply our own growing needs and a large part of those of our allies. In the face of increasing requirements, we meet higher costs, unstable prices, transportation congestion, labor problems, new taxes, and other conditions which discourage individual enterprise and reduce output.

"The abnormal conditions in domestic industries, together with uncertain foreign sources of supply and diminishing ocean tonnage, even now cause scarcity of war materials, which will prolong the war. No governmental body now has the authority which must be exercised to stimulate domestic production and to control effective distribution and use of mineral supplies. This bill has been framed to give the necessary authority to the President. The magnitude of the mineral industry, the vast interests founded on it, and the gravity of the situation demand that the President be given wide powers.

"The bill has been modeled after the Lever bill (Public, No. 41, Sixty-fifth Congress), under which the President formed the Food and Fuel administrations. The circumstances which justified the passage of that act are almost identical with those that now threaten to reduce the supply of ores and minerals which are needed in the conduct of the war. Although applying to different commodities, the objects are the same, and they can only be secured by granting similar broad powers to the President. The bill provides authority to encourage the production of ores and minerals and conserve their supply, to assure equitable distribution, to improve and direct utilization, to prevent manipulation, speculation, unfair practices and unequal division of profits, to lessen our dependence upon imported materials, and to control prices.

"The most far-reaching provision of the bill is incorporated in Section 14, which grants power to fix prices and make guarantees to stimulate the production of ores and minerals. The effect of minimum prices as contracted with maximum prices is to encourage output. The authority to determine and fix minimum prices, therefore, becomes the most important instrument in the bill, which would fail to accomplish its purpose unless such authority is included. To strengthen the Government's purchasing power and prevent speculation and overproduction, authority is given the President to proclaim maximum prices.

"The purchasing power of the Government is today so great that it has been indirectly able to compel producers of many commodities to accept maximum price regulation. The agreements have not been confined to Government purchases, but in some instances have been extended to include private transactions. It is acknowledged that such agreements are not supported by law and could not be enforced without the full cooperation of producing mines, smelters and selling agencies. In the future maximum price regulation may become imperative, and the authority to make such regulations should be provided by law rather than to place reliance upon producers or on the influence of Government officials and public opinion. The bill (Section 14) confers such authority upon the President Such action, however, cannot be wisely taken except through a body which is able to determine what the effects will be upon production. Price regulation is dangerously shortsighted unless designed to equalize supply and demand and to operate over definite periods. Prices must be so determined that adequate production will be assured during the war. Mining responds slowly to increased and urgent demand, and there is danger that unrestricted competition operating under a low maximum price may force the abandonment of mines whose output may be required at a later time.

"Nearly every Government board or department has been concerned with some phase of the import problem as related to different minerals, and their efforts have been almost exclusively directed to maintaining imports on the past scale. Importing firms and consumers have not recognized that there are deposits of many of the minerals in our own country which can supply part or all of our requirements. At the outset, such assistance was justified, even though development of domestic deposits was thereby discouraged or delayed. Our position will be strengthened to the extent that we become self-sustaining, and imports must be restricted to those materials and in quantities which cannot be supplied under any circumstances by our own mines. The time has come to give Government encouragement to every new enterprise which helps to reduce our imports.

Under existing internal conditions, new mines cannot be rapidly opened and equipped or operating properties enlarged without assistance in some form. Private initiative cannot make headway against the obstacles which must be removed, and before well-directed efforts will be made on the part of producers the Government must state its requirements, announce that imports will be curtailed and guarantee producers that fair prices will prevail over definite periods. Such a program can only be formulated and executed by an agency in which the entire control of the mineral industry is centered.

"Plans to open new mines and increase the output of producing mines will be abandoned or postponed unless the Government is prepared to say that reasonable fixed or minimum prices will be maintained. The inability of producers to execute long-time contracts has contributed more than any other single factor to hinder development. Uncertainty regarding the duration of the war and the trend of prices thereafter discourage investment in any enterprise which is primarily based on unusual war demands. Capital cannot be induced to seek such investments unless the Government removes the unctrtainties which confront those interested in mining. Unless the fact is recognized that mining introduces an added element of risk and that Government encouragement is required, we cannot expect to materially reduce our imports and expand our production in the same proportion that requirements may increase.

"Measures must be taken to provide supplies beyond our immediate needs, in anticipation of a long war. It is imperative that some official body proceed to collect and make known the combined estimates of each branch of our military establishment and domestic requirements.

"It is obvious that there is no logical separation possible between the control of the mineral industry and the control of the industries to which its products are essential materials, and effective regulation of one necessitates the regulation of the other. In preparing this statement the War Minerals Committee has selected the following illustrations from the needs of the mineral industry with which it is familiar. The authoritative facts relating to the industry have been taken from records of the Geological Survey and the Bureau of Mines:

"The extent to which we must continue to rely upon foreign sources for supplies of certain minerals requires that investigations should be undertaken to devise substitutes for those materials and to improve the manufacturing methods so that smaller amounts will be used. Among the metals for which substitutes should be actively sought are tin, manganese and chrome. Certain uses of tin are not essential in war time, and satisfactory substitutes have been devised and used to a limited extent. Indirectly the Government can now control the distribution and use of tin, but it should conduct a campaign of conservation among consumers whose supplies should be curtailed.

"To secure enough sulphuric acid, it will be necessary to use foreign and domestic raw materials to the best advantage. This will require the use of different materials by certain plants, and must be accompanied by the authority to compel such changes in practice. A close survey of the uses of sulphur will undoubtedly show means by which new economies may be introduced. In this connection there may be an opportunity to save thousands of tons of pyrites and sulphur by better handling of burners at acid works and sulphite wood pulp mills. There is an opportunity to render technical assistance to improve the concentration of pyrite and manganese ores. Production of both minerals in this country may be increased with existing equipment by improved milling methods.

"Priority certificates and transportation orders must be granted to new pyrite, manganese, chromite and graphite producers if any attempt is to be made to replace our imports from domestic sources. Every mining company now finds it extremely difficult to move their ores and obtain equipment, supplies and fuel. Some companies have recently shut down beacuse they have not been able to obtain fuel or transport their product. Others are suffering because they cannot obtain deliveries of new machinery. Unless prompt relief is given, nearly every mine in the country will be handicapped and forced to reduce its output. This critical condition cannot be overemphasized. Judgment based on close association and knowledge of the industry must be exercised, and the assistance which could be rendered to both the Priority Board and producers would relieve congestion in shops and greatly aid those who need equipment and supplies. Opportunities to adjust material and ore movements will present themselves, and saving of cars and length of hauls could be effected.

New production of such metals as manganese and chrome may be expected to come in a large measure from many small operators. Frequently they do not know to whom to offer their product, and are not familiar with the trade specifications and grades of the material which they mine. Such conditions have resulted in many unsatisfactory transactions which have discouraged the producer and prejudiced the buyer. Production from such sources can be greatly stimulated under Section 11 of the bill."

DECEMBER COAL PRODUCTION FALLS OFF 5,000,000 TONS

Severe cold and snow, impeding traffic on a railway system already congested with an unprecedented burden of freight, and even retarding surface operations at the mines, caused the December production to drop more than five million tons from that of November, says a Geological Survey report. A preliminary estimate places the bituminous output (including lignite and coal made into coke) at 42,143,000 net tons. This was the lowest recorded since April, 1917, when a production of 41,813,000 tons was reported.

The average production per working day during December was 1,685,702 tons, a decrease of 10 per cent when compared with November, 1917, and of 4.4 per cent when compared with December of the preceding year.

The year's production amounted to 544,262,000 net tons. This was an increase over the production during 1916 of 41,743,000 tons, or only 8.3 per cent. The expected increase of 10 per cent forecasted in the bulletin of October 11 might have been attained had it not been for the storms of mid-December.

The increase of the 1917 output over that of 1915 was larger, amounting to 101,637,000 tons, or 23 per cent.

Production during the first fortnight of 1918 has been at the rate of 1,799,000 tons per working day. The average for the year 1917 was 1,777,000 tons.

The month's production of beehive coke is estimated at 2,420,143 tons an average per working day of 96,806 tons. The lowest daily average recorded before in any month during the last two years was 103,268 tons in February, 1917.

The total beehive output for the year was 33,994,833 net tons, or 1,470,000 tons less than for 1916. The decrease, amounting to 4.3 per cent, occurred simultaneously with an increase in the demand for coke, and is to be accounted for, in part, by the effect of car and labor shortage in limiting output, but chiefly by the successful competition of by-product coke. Preliminary estimates place the production of the latter at 22,600,000 tons, a gain of 3,531,000 tons over 1916, or 18.5 per cent. By-product ovens have thus not only supplied the additional consumption induced by the growth of industry, but have displaced nearly one and a half million tons formerly supplied by beehive ovens.

The total output of coke, including both beehive and by-product, is estimated as 56,600,000 net tons. Of this, beehive coke constituted 60 per cent and by-product 40 per cent

The only regions to record an increase over November, 1917, and December, of the preceding year, were the South and the far West. The southwest held its own. Over the great producing areas of the North, from Illinois to Maryland, a severe depression was reported. Shipments in central Pennsylvania, Maryland, and the New River and Pocahontas fields of West Virginia, fell off 20 per cent as compared with the preceding month. In the remainder of West Virginia and in eastern Kentucky they declined 13 per cent. In Illinois, Indiana and western Kentucky, and in western Pennsylvania Ohio and Michigan, shipments, though as great as in November, were materially less than in December of the preceding year.

Zerbe Named District Representative

The United States Fuel Administration announced, January 28, the appointment of the seventh of its District Representatives, in the person of J. B. Zerbe, of Cleveland, Ohio. He will act as representative of the Fuel Administration in Belmont, Columbiana, Carroll, Coshocton, Guernsey, Harrison, Jefferson, Mahoning, Noble, Portage, Stark, Tuscawaras, and Wayne counties of Ohio, and Brooke, Hancock, Marshall, and Ohio counties in West Virginia.

All orders from the Fuel Administration for the shipment of coal from this district will hereafter be directed to District Representative Zerbe. He will allot these orders among the coal operators in his district, and will expedite the movement of coal from the mines in his jurisdiction.

PREFERENTIAL ORDERS STOP SMOKELESS SHIPMENTS WEST

In response to telegrams from Chicago coal dealers making inquiry as to the Chicago supply of smokeless coal the Fuel Administration sent out the following:

"We have not issued orders discontinuing shipments of smokeless coal to Chicago. It has been necessary on account of the demand of the Government and New England requirements to request all operators in New River and Pocahontas fields to give preference in shipments to tidewater for those requirements. On account of the cross hauling involved it will be necessary to reduce shipments of this coal to western points including Chicago but this will be handled by substitution of other coal from fields involving shorter haul.

"This action is necessary in the present emergency in order to provide coal for government requirements and to assist the railroads in the matter of increasing their facilities by reducing cross hauls and long hauls as much as possible. Raymond Durham, Federal Fuel Administrator for Cook County, Ill., is in Washington and arrangements will be made to protect Chicago requirements as far as possible." The telegram went to the leading coal men and firms of Chicago.

WASTE IN BURNING COAL ENORMOUS, MANNING SHOWS

Fuel to the Value of $250,000,000 Can Be Saved If Consumers Will Observe Simple Rules of Economy.

By Van H. Manning

Director of United States Bureau of Mines

It has been generally known for some time that Americans are as wasteful of their coal as they are of all other resources. There is, perhaps, no other field of American endeavor in which the people can save as much money from actual waste as in the burning of coal. If the people can be aroused to an intelligent consideration of the burning of coal, they can save 10 per cent of the production. Last year that production was 600,000,000 tons. Ten per cent of this is 60,000,000 tons, and if you place an average value of $1 a ton on this it represents a saving of nearly a quarter of a billion of dollars a year.

With a little more effort, through instruction, and a moderate remodeling of coal-burning equipment, which could all be accomplished during the war, another 10 per cent could be saved, which would bring the total saving up to nearly half a billion dollars a year.

Eliminating the fact that we are at war and considering the ultimate ideal in the burning of coal throughout the country, how much coal could be saved?

A census of this subject would be almost impossible. I can only give my opinion from what I know of the general situation. I will say that if we could equip the entire country with the best mechanical devices used in the burning of coal, and if we could make a skilled user out of the average user, we could get along with half as much coal as we are using. If we used 600,000,000 tons last year, I will venture the opinion that under ideal conditions we could have accomplished the same results with 300,000,000 tons. Such a result would solve our problem at once, would lower the price of coal, and would make it at once possible to send all the coal that may be needed by our allies.

All of this would depend upon the people taking the lessons in coal burning to heart, using the same care as they do in other things and stopping the spending of money on inefficient panaceas. I am told that thousands of dollars of the people's money goes into alleged coal powders that are supposed to save half your coal. There may be such a powder, but I have never seen it, and neither have any of the experts of the Bureau of Mines. On the other hand, at the earnest solicitation of well-meaning citizens, the bureau has tested a number of these powders, and has yet to find any efficiency in any of them. I have been forced to the conclusion that the man who buys these alleged coal-saving powders is buying chemicals at chemical prices, and it is much cheaper to burn coal than chemicals.

A serious mistake the average manufacturer has been making is his refusal to consider his fireman as a skilled worker. Too often he is treated as a roustabout. He is generally put down in the room that is left. He is the last man to get your sympathy or good working conditions. Labor-saving devices are not given to him many times, and he is made to feel that he is a common laborer. In fact, a really good fireman is a skilled man, and should be so treated.

The ordinary fireman handles from 3 to 10 tons of coal a day. When coal costs the manufacturer from $1 to $2 a ton, as it did some time ago, you couldn't expect much from the fireman, but it is much different now. With coal now costing the manufacturer at least $1 a ton, the fireman is now handling from $12 to $10 a day of the manufacturer's money, and the manufacturer is beginning to see how his money is being spent. This is an encouraging feature of the situation. It will mean a better recognition of the fireman, more efficient work, and a great saving in coal. In the near future I expect to witness a large saving of coal through the establishment in the great industrial centers of the immense central electric power stations. You may soon find the energy requirements of the country massed in the districts in which there is great density of manufacturing and great density of population. The possibility of saving coal through such plants is almost beyond calculation. Chicago, which is the best electrified city in the country, this power being as available in the metropolitan district as water is in most cities, has been studying the electrification of the railroads as a method of getting rid of the smoke nuisance. While no definite conclusion has been reached as yet, the question being one largely of finance, I have been informed that with the electrification of the railroads and the power for the entire Chicago area for all purposes massed in one place there can be a saving of 6,000,000 tons of coal a year in that one city.

In another community one company has the distribution of electric energy in the densely settled portion, while another company has the area outside of the municipal limits. Outside the maximum demand for energy comes in the morning; inside the city the demand for maximum energy comes in the afternoon. The institution that operates outside the city has idle plant during the hours of the day when the institution inside the city has its maximum demand. That duplication of investment and the excessive operating expenses is costing the people of that community $6,000,000 more a year than is necessary, and, of course, using much more fuel than is necessary. If these conditions can be corrected in the great industrial centers of the country in the next few years, we will be able to show a saving in coal consumed of more than 150,000,000 tons each year. In other words, under ideal operating conditions, the greatest saving to the country can come in the use of industrial coal.

Although we are a wasteful nation, we are very adaptable and quick to inaugurate reforms when they are once shown. I do not suppose that the country is aware generally of the quiet revolution that has been going on in the elimination of the beehive coke oven and the rapid growth of the by-products oven. In the latter oven the saving amounts to approximately 1,100 pounds of coal for each ton of by-product coke made. By January of next year, if present contracts are completed, we will have nearly 10,000 by-product coke ovens, with a coke production of more than 35,000,000 tons. The extent of the saving of the fuel resources of the country in this field alone will be appreciated when I tell you that the new ovens added since January, 1915, will save annually to the country 9,000,000 tons of high-grade coal. In the last three years the by-product coke production has practically doubled, and there has been as much gain in capacity as in the previous twenty years.

To the householder let me say that there are simple, practical rules to be followed with your furnace if one wishes to save coal and obtain the best results. These rules are embodied in a small pamphlet issued by the Bureau of Mines, and any citizen may have a copy without charge by writing to the bureau.

HIGHER PRICE FOR EXPORT AND BUNKER COAL IS ALLOWED

The Fuel Administration has fixed the price at which coal loaded here into the bunkers of ships and coal for export, except to Canada and Mexico, shall be sold. This somewhat difficult question has been dealt with, it is said, in a way designed to insure justice to producers here, to the United States Government and to foreign governments.

The order provides that coal for export or bunkering purposes may take a price of $1.35 per ton higher than the domestic price. This leaves the average price at American ports still $1.50 per ton lower than is charged for bunker coal at the leading English ports.

The Fuel Administration found that selling coal to foreign ships and for export cargoes at the same price fixed by the President's Proclamation for home consumption resulted only in putting a large gratuitous profit into the hands of foreign vessel owners and coal dealers—a profit subject to taxation of foreign governments in some cases at the rate of 80 per cent.

Coal for ship bunkers or cargoes sold to foreign buyers at our domestic price saves the foreign buyers at least $3.00 per ton as compared with English coal bought at Cardiff or Newcastle. This $3.00 saving has no effect in lowering the shipping rate which is based on the cost of English coal.

This difference between the price a foreign buyer must pay for coal at European ports and the low price at Hampton Roads goes into his pocket as a gift from the United States. Similarly consumers of coal in South America and other countries must pay a price established by English competition and the difference between this price and the price established for the domestic buyers of the United States becomes additional profit for the importer in Argentine, for instance.

It thus became a serious question whether this profit should not be kept at home.

On the other side was the possibility of unduly increasing the proportion of our whole production going into foreign channels. This danger will be overcome through the licensing system of the War Trade Board by which a more rigid limitation of export coal will be made than ever before. The Fuel Administration will control every pound of coal which leaves the United States during 1918.

Attention is particularly called to the fact that it is an injustice to compel American producers to sell coal to foreign buyers at the same low price fixed by Presidential Proclamation for domestic consumers while other nations not only permit much higher prices for export but actually prescribe minimum prices so that competition shall not force cheap coal for export at the expense of home producers. We must, like other countries, consider the ultimate effect on the financial strength of the nation.

The decision reached and promulgated, while somewhat in the nature of a compromise, is believed fair to all concerned and fully protective of the interests of this Government.

The order of the United States Fuel Administration follows:

"The United States Fuel Administrator, acting under authority of an Executive Order of the President of the United States dated 23 August, 1917, appointing said Administrator, and in furtherance of the purpose of said order and of the Act of Congress therein referred to and approved August 10, 1917,

"Hereby orders and directs that, until further or other order of the United States Fuel Administrator, the maximum price of coal sold and delivered to vessels for foreign bunkering purposes or for export to foreign countries, except to Canada and Mexico, shall be the price prescribed for such coal at the mine at the time such coal left the mine, plus transportation charges from the mine to port of loading, plus $1.35 per ton of 2,000 pounds. To this price, computed as above, the seller of the coal, or such other agency as performs the actual work of bunkering or loading the vessel, may add the customary and proper charges, if any, for storage, towing, elevation, trimming, special unloading, and other port charges, and is subject to all present and future regulations of the United States Government.

"Nothing in this order shall be construed to affect or modify any of the regulations of the War Trade Board regarding coal for export or bunkering."

VOL. 4 NO. 2 WASHINGTON MARCH, 1918

THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

A FEDERAL DEPARTMENT OF MINES

In the stress of present war conditions, when many patriotic people, both in Washington and elsewhere, who are giving of their service to the Government, which service is being but partially utilized because of the impossibility of the immediate coordination of their efforts, much talk is indulged in concerning the necessity of creating new executive departments of the Federal Government. We particularly commend President Wilson for his disapproval of the plan for the creation of a munitions department. Permanent governmental agencies should only be created where a continuous necessity exists for more intelligent management of governmental affairs. Present conditions have demonstrated the great necessity for a department of mines, with its head a member of the President's Cabinet. The coal famine from which we are now recovering, which has caused so much of suffering and which has impeded in every direction the production of war munitions and life necessities at the time of the Nation's greatest peril, was bred in a lack of appreciation of coal mining problems. THE MINING CONGRESS JOURNAL believes the catastrophe would have been avoided had there been one man with a proper conception of the mining industry and its requirements sitting in the councils of the President's Cabinet. The mining industry is more important in the United States than in any other nation of the world. The United States is the one big nation which has not given it proper governmental recognition. There has been a public sentiment which has stood as a continuous bulwark against every effort looking to assistance to the mining industry.

The creation of the Bureau of Mines was the first public recognition given by the National Government, and this bureau was not created in response to a public demand for needed assistance in the development of the industry. Congress was only moved to create the bureau because of the appeal to public sentiment on behalf of the miners whose lives were unnecessarily sacrificed in the conduct of the industry. It was the appeal of the safety-first movement which led Congress to create a bureau of mines.

More than twenty years ago the mining men of the West met at Denver, Colorado, in a great national convention and organized the American Mining Congress for the purpose of securing Federal aid to the industry. The question of safety was not considered at that time. It was pointed out that agriculture has been receiving generous aid from the Federal Government, and through its constructive efforts very great service had been rendered to the agricultural industry and to the people as a whole. It was then pointed out that the problems of the mining industry were more numerous, more difficult of solution, and required a higher degree of scientific and engineering skill than the problems of agriculture. It was pointed out that mining was equally as important as agriculture, and that its highest development required that the mining industry should first perform its function; that while many agricultural problems could be solved by individual efforts, the problems of mining were of such a character that individual efforts could not afford to work out a solution which would be for the benefit of all, except it be by some great corporation which could utilize and absorb the benefits to itself, or else by those who would cover the invention by patent and thus make its complete use unavailable. Notwithstanding these well-defined arguments, Congress turned a deaf ear to the appeal of the West for assistance in the development of the mining industry until these appeals were coupled with the safety-first appeal to human interest.

At present there is an apparent need for some new agency to stimulate the production of certain minerals needed for war purposes. THE MINING CONGRESS JOURNAL believes this need may be met by purchase contracts which will in a way subsidize production, but it believes there is a continuing and growing need for the coordination of all governmental agencies having to do with mining under one head having access to the inner councils of the nation.

PATRIOTISM AND MENTAL DISHONESTY

No great undertaking can be carried on successfully except there be somewhere lodged a power to finally determine its policy and procedure. The more nearly autocratic that central power becomes, the more effective its operations. The people of the United States, without respect to party, have, since the declaration of war with Germany, stood squarely behind President Wilson, outwardly endorsing and approving his every act, without regard to whether these acts were considered wise or otherwise. It has required much of patriotism to induce the approval of plans and policies known to be foolish and believed to be fraught with grave danger to the country. The coal operators of the United States, with a capacity for the production of 50 per cent more coal than the country could possibly use in normal times, accepted without protest the Presidential order fixing a price upon coal so low as to automatically cripple the 50 per cent excess production facility. Far-sighted coal operators stood aghast at this order, but, in patriotic approval, hoped for better results than their judgment believed possible. The coal industry was unorganized. Perhaps someone, from the national viewpoint, could solve a problem which individual operators by themselves had been unable to meet. At any rate, the effective power of the nation required of them complete approval. The internal dissensions of Russia, which have made her entirely ineffective in the present great war crisis, seemed to be sufficient reason why individual interests should be disregarded and individual judgment set aside in order that a united front could be presented to the enemy.

Unfortunately, the worst misgivings are being realized. Our united front is disorganized, and we are fooled, although with great reluctance, to admit that our industrial machine is handicapped and that new policies will be necessary in order that we may present an effective fighting front. No great satisfaction can be derived from the admission which we cannot escape, that our industrial machinery has broken down with respect to fuel resources, that the productivity of the nation is being curtailed by the shortage of heat and power, in addition to the necessary shortage of labor consequent upon withdrawals of the large number of those who have joined the colors. MINING CONGRESS JOURNAL has consistently refrained from criticism of the Fuel Administration; it has pointed out the enormous responsibility of the Fuel Administrator and the great difficulties of his work; it has believed Dr. Garfield to be an honest, conscientious man, striving in a big broad way to carry the responsibilities of his position. Nevertheless, it believes that the present coal famine is the necessary and natural result of governmental interference with the orderly conduct of the coal mining business, and that it would be mentally dishonest, as well as unpatriotic, if it hesitated to point out the lessons which should be learned from this unfortunate experience.

THE EARNING POWER OF LABOR AND CAPITAL

The grave concern caused by the rapidly increasing rate of wages, which was properly felt at a time when the price of commodities was remaining normal or falling, has lost much of its force during these times, when commodity prices are so rapidly advancing. The pinch will come when commodity prices take the great and the inevitable tumble in obedience to the law of supply and demand, while the wage rate will stubbornly, and perhaps properly, resist this law to the extent that resistance can be made effective. Mining Congress Journal believes that a substantial advance in civilization will have been made, in that it believes in the highest possible wages which can be equitably paid by industry. Artificial means may operate to resist the law of supply and demand as relating to the rate of wages. In a country consuming all of its own production this might be made successful, but only by taking from labor itself the luxuries which it might otherwise enjoy. Labor should strive to secure the full benefit of its earning power. To distinguish between the earning power of labor and capital is one of the most difficult questions presented to economists. The invention which enables one man to do the work of ten must not and should not undertake to secure the wages of nine men. Nor, upon the other hand, should the one man receive the wages of ten, leaving no reward to the inventor. Labor without wealth would be largely helpless, and wealth without labor entirely helpless.

In times past capital has received more than its just share but labor has received a very large share of the earnings made possible through invention, which is evidenced by the luxuries which the common people enjoy as compared with conditions before the days of modern invention. If too large a share of the earnings of wealth and invention shall be absorbed by labor, it will hamper those activities, and thus interfere with the world's progress. The best channel through which the world's wealth can be distributed is that of wages. The proper distribution of wealth presents one of the most difficult problems of economics. An equally important problem is the production of wealth, and one which necessarily precedes distribution. It is probable that foresight and experience will each take part in the solution of this great problem. Experience will travel a road of suffering and want, while foresight and vision will lead through paths of greater comfort and luxury.

UNFAIR COMPETITION

A very great disorganization of business conditions must necessarily follow the priority orders and transportation embargoes which seem to be necessary in order to meet the Government's requirements.

Mining Congress Journal believes that some of the transportation embargoes have either failed to serve their purpose, or else have created a much greater dislocation of government requirements elsewhere. However, this may be, many of these orders are necessary and infallible judgment is not to be expected. There seems to be one sphere however, in which there is great need for reform. The operation of the coal or copper mines, each of which in different degrees are producing a government necessity, most naturally complain when they find that the Government is hiring away their men at double pay to work as carpenters in the construction of a powder plant elsewhere. The best results cannot obtain where competent miners become carpenters by the purchase of a foot rule and a hand saw. The indiscriminate scramble for office help by the bureaus, new and old, in Washington, has been as amusing as it is unbusinesslike. Those familiar with government management of business affairs have long since ceased to expect efficiency.

In the industrial world, however, the conditions are different, and a government controlled plant operated on the cost plus 10 per cent basis, is sure to drive every private enterprise needing help out of business. There is no limit to the price such a plant can pay for help while the individual enterprise must necessarily produce at a cost below the market price.

The Congress of the United States has spent many years considering the question of unfair competition. Its attention is now called to a competition unfair without limit, which should not be permitted.

THE SILVER SITUATION

A few months ago our Western friends were greatly encouraged by the belief that a necessity was coming for a largely increased use of silver, and that in consequence of this demand the price would be so stimulated as to permit the mining of silver upon a profitable basis in mines in which silver was the principal metal produced. This hope had been stimulated by the embargo upon gold exportations and the necessity for the use of large quantities of metallic money in the settlement of foreign trade balances with countries willing to accept silver and to which the payment of gold was either entirely prohibited or greatly restricted by the necessity for governmental approval.

Official Washington has recognized the necessity for the immediate use of large quantities of silver, which were nowhere available except in the United States Treasury, and which reserves were there impounded as a basis for the security of the silver certificates in circulation. Legislation was necessary in order to permit the release of this silver. The withdrawal of this silver required the withdrawal of the silver certificates which it supported, which in turn would, to an extent, disturb the monetary situation by withdrawing a considerable amount of silver certificates from circulation.

Under these conditions, it was thought advisable to permit the temporary withdrawal of the silver certificates and the temporary use of Federal reserve notes to keep steady the volume of money in circulation, the silver to be withdrawn to the extent that contracts for further deliveries of silver bullion were made by which the silver certificates should be kept intact.

This plan has met very much of approval, but other measures of greater financial importance to the country at large were before Congress, and it was not deemed wise to submit this question until this important legislation should be out of the way. Because of this, silver legislation has been delayed. Congress is making rapid progress, and it is believed that in the very near future the silver question will be taken up for earnest consideration and that a sensible disposition may be made of a question of most vital importance to the nation as a whole.

It is most encouraging that the necessity for the greater use of silver is being considered now by those who are not directly interested in silver production.

THE INCOME TAX PRINCIPLE

There is a growing belief that those lines of business in which unusual profits are made should be called upon to respond to the Government's needs in greater degrees than ordinary property, in that income taxes fall with less burdens than other forms of direct taxation. It is believed that property as such, productive and unproductive alike, cannot, without undue burden, meet the increasing expenses which are to be met through direct taxation, and in consequence that the income tax principle has come to stay, and that it is likely to be graded in accordance with increased profits yielded by business enterprises. It follows that liberal construction of the law so as to take into account the character of a wasting industry as well as correct methods of cost accounting, through which proper allowance is made for depletion and amortization, are both of vast importance to the mining industry.

UNFETTER THE AGENCIES OF PRODUCTION

It is frequently stated that labor is coming into its own. Conditions of stress and great responsibility call particular attention to the importance of those agencies which are essential to meet the public demand. The public has never before appreciated the importance of the mining industry as it does now. The importance of labor has always been recognized, but its function is now being appreciated as never before. The right to control carries with it a grave responsibility. We hear much talk of a possible food famine. To avert this, every possible agency which makes for food production should be stimulated to its highest power. We are just recovering from the effect of a coal famine, needless and foolish, but none the less real and none the less aggravating. Now is the time when preparations should be made to avoid fuel and food famines in the future. Proper notice being given and sufficient liberty allowed, the law of supply and demand will meet every requirement. Shall we permit it to operate, or shall we, by official restriction and red tape, by interference with well-established laws, by fuel administrations and price-fixing activities, interfere with the operation of this law, which automatically commands the active service of the best in each given line of industry? Shall those who have heretofore successfully managed a certain line of business be reduced to the rank of those who subserviently execute orders received?

To enable our naval and military organizations to exert the greatest power, all the machinery of production, transportation and exchange must be operated under those laws which will secure the maximum of efficiency. Preparations for planting spring wheat must begin shortly. No power is sufficiently forceful or acute to be able to harvest a crop which has not been planted; no furnace can produce power with coal which has not been mined; distributors cannot function until the railroads have delivered; the railroads cannot deliver until the articles are ready for shipment.

The immediate problem at the beginning of the next season is to get sufficient coal in every bin of the country at the earliest time possible to meet the requirements of the year. The coal mines of this country are able to produce much more than can possibly be consumed. Every agency which interferes with the free distribution of coal is a public menace. Few people are able to buy more coal than they need, and those who do will be forced to divide with their less fortunate neighbors in case another coal famine should be upon us. A dire extremity levels all ranks and destroys all property rights. Get the coal distributed in the various sections of the country where it is likely to be needed and few people are likely to suffer.

Let us kick out of the road every agency, governmental or otherwise, which interferes with the free production, distribution or exchange of both food and fuel, and let the promise of a proper reward stimulate every enterprise to its full activity, and we shall have enough of all of these necessities for ourselves and for our Allies.

MAKING DEMOCRACY SAFE

One of the most striking addresses delivered at the recent meeting of the American Institute of Mining Engineers in New York City, was that delivered by Samuel A. Taylor of Pittsburgh, Director and former President of the American Mining Congress, and engineer of the Fuel Administration in Washington. A patriotic appeal to lend every possible assistance to the great world effort to make the world safe for democracy was coupled with an appeal that we should also be mindful of the necessity of making democracy safe for the world. This epigrammatic statement should command universal attention, as we are drifting farther and farther away from the principles of government contained in the Constitution of the United States, and based upon the will of the people, as expressed through its representatives.

In these days, the distinction between a pure democracy and that form of government in which people express themselves through chosen representatives and thus make possible an executive expression of the will of the majority, has in great measure been lost sight of by many people. At this time, the necessities of the situation require executive power even to the limits of autocratic power in order that all the forces of the nation may be made to act as a unit in its present great emergency.

The Government has taken over the railroads, it has assumed control of many lines of industry; its present thought looks to the assumption of the control of all industries. To the extent that this is necessary, MINING CONGRESS JOURNAL gives it hearty approval, but it does not believe in any government interference with any business which is meeting the public requirements. It does not believe in any interference or control of private business, if the results aimed at can be secured in any other way. It therefore opposes any increases in autocratic power, except as these are absolutely necessary, and upon the other hand, it is gravely concerned because of the socialistic tendencies of the time which, when the autocratic power is surrendered, as some day it will be, is likely to assert itself in a dangerous way.

Democracy cannot be safe for the people and for the world except as it shall express itself through the will of the majority and this necessarily means a representative government, a government under the Constitution of the United States.

JUSTICE TO PUBLIC LAND CLAIMANTS

Among many strong presentations of the Western point of view upon the public land question now being considered by the House Committee on Public Lands, the appeal for justice delivered by Judge Tully Scott, of the Supreme Court bench of Colorado, is worthy of particular attention. On the face of this situation, as it is understood by the public, it may seem that there is no call for such expression, but when it is comprehended that the rights of coal claimants in Alaska were not only destroyed, but the right of an appeal to the courts was taken away by Congressional action, and that the rights of legitimate oil claimants are subject to similar action under the present bill, the statement seems timely.

THE MINING CONGRESS JOURNAL has always contended, and still insists, that dealings between the United States Government and its citizens should be upon a basis of absolute good faith, and that the right of any citizen should be held more sacred than mere property right. Judge Scott's statement was, in part, as follows:

"Congress in 1872 adopted our mining laws. They gave us what is known as the Placer law. At one time the Secretary of the Interior decided that oil did not come within the Placer Act. In 1897 Congress passed a law declaring that it did. Congress said to the people of the West, 'You may enter these oil lands if you please and you may develop them and you may secure titles.' The prospector did enter. That constituted a contract between the Government and the prospector.

"The surprise came when the President of the United States withdrew these lands which we had entered and upon which we had spent our money.

"Of course nobody believed that the President had the power to withdraw lands that had been pledged by Congress to these people under solemn obligations. The President himself at the time stated his doubt of its validity. But the Supreme Court of the United States by a divided Court said that he had that power and with us that is law.

"Now the relief can come only from Congress. We cannot go into the courts. The question is a question of common decency. If it involved a transaction between individuals you would say that there should be a compliance upon the part of the grantor of the land. At this time shall Congress permit its citizens to believe that it does not do business upon principle of honor and good faith. If there ever was a time when the Congress of the United States should appeal to the confidence of the citizen, it is now. When you are asking of our sustenance, when you are asking our manhood to offer up their lives as evidence of patriotism and devotion to country, the Congress of the United States should show to its citizenship that it does business in good faith with its own."

A BLOT ON THE HONOR OF THE NATION

Forgery is the act of making or altering, with intent to defraud, a writing purporting to be a valid obligation in such a way as to work injury to another.

In the eyes of the common law, as well as by statute, it is classed with burglary and manslaughter. It requires a high-grade villain to perpetrate the crime effectively. A written document, which alone can be the subject of forgery, is not more sacred than the law of the land to which all law-abiding citizens look for protection. The decisions of the courts are not more effective where courts are open to the parties than the ruling of the administration in putting into effect those laws where the parties are bound by administrative rulings. When the law or the construction placed on a law by the administration gives title to prospectors who make a discovery of valuable mineral upon the public domain, no change in the ruling should be applied to the citizen who, accepting the governmental proposal in good faith, has spent his time and money in making a valuable discovery. To change the rule after the acceptance of the proposition may be different in practice, but not different in principle, from the change of the wording of a document to the disadvantage of the promisor.

The Government of the United States promises a patent to a certain acreage of land to any prospector who would discover and develop minerals thereon. The Senate of the United States has passed a bill taking care of the prospector on the public domain who has developed the oil which is now serving so important a part in the great war.

It is understood that three members of the President's Cabinet and two members of the House Committee on Public Lands have agreed to press an amendment to the Senate bill which will alter the basis of reward which induced the development. The consummation of such a plan would not be forgery, although accomplishing the same results and partaking of much of the heinousness involved in that crime.

The Alaskan coal leasing bill contained a provision which deprived Alaskan coal claimants of their just rights in the coal lands and of their right to a hearing in court. The law, as was freely predicted before and at the time of its enactment, has proved to be abortive. It has locked up the coal reserves of Alaska and has forced the transport to the Pacific fleet of coal from West Virginia, for the want of which the people in Washington, Philadelphia, and New York have been suffering.

The proposed House amendment to the Walsh-Pittman bill will not create an oil famine, but it will do worse. It will place another blot upon the honor of this great nation, which we love in spite of the dishonorable acts of some of its representatives.

CAPITALIZING THE WAR

About the most unpatriotic thing which has come to the attention of the writer, is the effort of many, very many, business organizations to make pretense in their appeals to the public, that patronage given them will be an aid in winning the war. The hotel menu with its wheatless and meatless days, with its continually shrinking portions and its frightfully increasing prices, asks you to be content and help win the war. In your hotel room for which you are paying an increased price, you are met with the request to turn off the heat and the light and help win the war. It is related that a certain landlord instructed his chef to cut in two the portions to be served guests in accordance with the order of the Food Administration, while he himself in order to equalize the situation, would double the prices.

The rule of service to those who cannot go to the front is exceedingly simple. "Consume less and produce more, and from the increased earnings contribute a proper share to the Government." Business must be enabled to earn more than ever before in order that funds may be accumulated from which war expenses may be met. The greatest service which the average man can render his country at this time is to speed up production of all necessities, giving special attention to the production of food and fuel.

INCREASING GOVERNMENTAL AGENCIES

Affairs of the world are undergoing a very radical and more than likely a permanent change. Governmental agencies are everywhere being augmented. It was once said the officeholders of a certain political party seldom died and never resigned. It is equally true that governmental agencies always create for themselves a continuing need and seldom or never cease operation. Not only are governmental agencies being rapidly multiplied, but the trend of the time looks toward greater public investment in public buildings, better roads, and continually increasing encroachments of governmental agencies upon fields heretofore occupied by private business enterprises. As these functions are assumed by the Government large blocks of taxable property are removed from the domain of assessment, and burdens must thereafter fall with increasing weight upon such property as still remains in private ownership.

THE WAR EXCESS PROFITS TAX LAW

The date at or before which returns from taxpayers under the Income and War Excess Profits Law is required, has been advanced from March 1 to April 1, 1918. Regulations issued by the Treasury Department are based largely upon the recommendations made by the War Excess Profits Tax Advisory Committee, and in many respects are exceedingly liberal. It is believed by the Revenue Department that under these regulations the law may be so applied as to prevent injustice to any mining corporation. Hoping that the law can be so applied as to meet extreme cases without injustice, the Mining Congress Committee decided not to make further effort at this time, looking to an amendment of the law by Congress. It is generally believed that the law should be amended and that perhaps for another year's operation the amendment should be sought, yet the belief is general that mining men everywhere should cooperate with the Bureau of Internal Revenue in efforts to so apply this law as to promptly and effectively provide the Government with funds which it must have in order to meet its war and general obligations. The Secretary's office is greatly gratified with the results of the efforts looking to a proper administration of the War Excess Profits Tax Law, and extends its appreciation to all of those who cooperated through this office, and particularly to the sub-committee, whose capable and untiring efforts entitle them to the sincere thanks of the mining industry.

PROFITEERING AND THE WAR

The temptation, and perhaps the necessity, for one who pays additional prices for everything which he buys to add to the charge made for his own product is too strong for human resistance. Frequently, and perhaps necessarily, the value of service must primarily depend upon the cost of its maintenance, to which a reasonable profit is fairly added. The increasing cost of labor, which necessarily means also increased cost of supplies, because these represent other labor, so adds to the cost of production that unless unconscionable profits were the rule in the past an increase of selling price is unavoidable. To the extent that these make for profit, and to the extent that this profit is absorbed by the Government through the excess profits tax law, does this so-called "profiteering" lend most material aid in winning the war.

This profit, as represented by money, is the only means through which necessities shall be made available for the prosecution of the war. Munitions, food and equipment, and, above all, transportation, which makes these materials available at the front, are the prime necessities. Too much criticism of profiteering will not add to the ability of the people to furnish the funds which are necessary for the work of the Government.

Business must earn money in increasing amount, or it will not be able to meet the enormous demands which must be met if we are to win the war.

FEDERAL CONTROL OF METALLIC MINERALS

In our last issue reference was made to a proposed bill for a metallic mineral dictatorship, under the provisions of which it was proposed to authorize the President to commandeer all of the agencies now employed in the production of metallic minerals. A general protest was made against the provisions of this bill, it being urged that drastic measures of this sort should be resorted to only in case of the failure of a particular industry to meet the demand of the public in the production of its ores. As a result of this activity, it was decided not to have the bill in its then form introduced into Congress, and a modified bill is now under consideration which is intended to apply only to certain rare minerals of which production is short. It is believed that by proper stimulus these minerals may be produced in this country. A considerable tonnage now employed in the shipment of manganese and pyrites from Spain, Brazil, and elsewhere to this country might thus be released for foreign service. The bill, as now proposed, was considered by the directors of the American Institute of Mining Engineers at its recent meeting in New York City, and by a vote of 16 to 2 was approved. It was urged "that no privately controlled industry can have the detailed knowledge of war needs or the control of all its supplies and markets necessary to effect the adjustment of its activities for war purposes." THE MINING CONGRESS JOURNAL does not believe this kind of legislation should be sought until the more simple and practical methods for stimulating production are exhausted. MINING CONGRESS JOURNAL again urges that "price is the final dictator of production." If the Government is in need of manganese ores, the guarantee of a sufficient price to justify production will immediately put in motion the best possible devised machinery, i. e., individual capital and personal supervision, charged with the necessity of exercising every economy and the greatest efficiency in order to make the greatest profit upon the investment. These are the means through which production upon a commercial basis may be assured. It is within the province of the United States Geological Survey to do everything that geological science can do in locating and defining the extent of mineral ore bodies. It is within the province of the United States Bureau of Mines, through proper investigation, to determine the method of treatment and to furnish public information to the individuals who are willing to risk their capital and their enterprise in an effort to meet the public requirement. The prime incentive to these activities is the profit which may be earned through the enterprise. More than two million tons of ores are now being imported, a large part of which should be produced from our own mines. Under the stimulation of an adequate price, guaranteed to continue sufficiently long to permit the amortization during the contract period of the difference between present high construction and development costs and the costs in usual times, there would be no difficulty with the governmental assistance referred to, and production will be assured of the highest possible amount of each of those minerals for which there is a demand and for which the adequate price can now be offered and guaranteed. This does not mean the creation of a mineral dictatorship; it does not require any interference with the orderly conduct of business; it does not call for the creation of agencies which will forever be a burden upon the taxpaying public, and it does create industrial taxpaying agencies which will be a continuing benefit to the country as a whole. We dislike to disagree with the very estimable gentlemen who represent the War Minerals Committee; we dislike to disagree with the deliberate action of the directors of the American Institute of Mining Engineers; we dislike to disagree with those eminent gentlemen who graphically portray upon charts the niceties of business organization and who need a mineral dictatorship to fill out a blank space upon the enormous sheets of paper already occupied with various intricate, complex and expensive organization schemes, beautiful to look upon, but carrying possibilities of enormous waste and extravagance in the expenditure of public money. Let us hope that Congress will pursue a sensible and businesslike plan for encouraging the production of those minerals of which the country now stands in need.

SENATOR REED ON THE COAL FAMINE

Upon another page we print copious extracts from a statement by Senator James A. Reed, chairman of the Senate Committee on Manufactures, in which he sums up the testimony given before the subcommittee appointed to investigate causes of the shortages of coal. Senator Reed's conclusions are a scathing indictment, not necessarily of the Fuel Administration, but of the principles which permit an interference with the machinery which, through long years of experience and under the guidance of trained men of superior intelligence and practical experience, has developed. It is an indictment of the policy of price-fixing. It is an indictment of every interference with the law of supply and demand. It furnishes full justification for the editorial statement in the February issue of The Mining Congress Journal that price is the final dictator of production. Where, because of abnormal conditions, the opportunity for extortion exists, it is eminently fit and proper that governmental agencies should fix a maximum price sufficiently low to prevent outrageous extortion, but sufficiently high to permit a substantial profit. This is what was done by the Peabody committee. The interference with this plan has caused the country untold suffering and want, has interfered very seriously with the war preparations of the country, has prevented timely production of supplies for the boys in the trenches, and may result in the sacrifice of thousands of lives. These lamentable results should not be charged to the Fuel Administration, but to the ridiculously foolish principle upon which the Fuel Administration was based and to those official dignitaries who discredited and set at naught the Lane-Peabody plan. It is also a very strong argument against the creation of any further mineral dictatorships and of more simple and effective plans for stimulating the production of such minerals as the country stands in need.

ALL IMPORTS AND EXPORTS BROUGHT UNDER LICENSE

As a further step toward placing the full force of our industrial strength behind the offensive against the enemy, the President has proclaimed that a license is required for all imports as well as all exports.

Since November 28, import licenses have been required for many of the basic raw materials, and importers are already familiar with the very simple method of procuring them. The added inconvenience of applying for licenses for all importations is expected to be negligible in comparison with the advantages secured. The question of what does or does not require a license, with its accompanying uncertainty and delay, will be eliminated. The benefits to be derived from this license system are numerous, one of the most obvious being that the present control over the distribution and use of raw materials which are now imported under license will be extended to all materials, so that at any time a shortage exists or appears imminent in any imported material, the supply thereof may be directed to the uses most vital to our martial requirements, but the most effective manner in which this weapon of import control may be used against the enemy is the prevention of trading with firms of pro-enemy character.

PROMINENT OIL MEN MEET AND LAY PLANS FOR INDUSTRY

At the request of M. L. Requa, Director, Oil Division, United States Fuel Administration, a meeting was held in Washington, last month, of the following-named representatives of the oil well supply industry:

Louis C. Sands, Oil Well Supply Company, Pittsburgh, Pa.; Fred W. Miner, National Supply Company, Pittsburgh, Pa.; F. B. Clark, Jr., Lucey Mfg. Company, Pittsburgh, Pa.; W. K. Hughes, Continental Supply Company, St. Louis, Mo.; M. L. Moore, Frick-Reid Supply Company, Pittsburgh, Pa.; J. H. McDonald, Atlas Supply Company, Muskogee, Okla.; W. M. Paterson, Frick-Lindsay Company, Pittsburgh, Pa.; A. A. Moody, Jarecki Mfg. Company, St. Louis, Mo.

The object of this meeting was to prepare a program for close cooperation between the oil well supply industry and the Oil Division of the Fuel Administration.

The committee suggested the calling together of representatives of the entire oil well supply industry, and that in the meantime a questionnaire should be prepared and sent out to them, covering certain information that it was deemed necessary should be secured so that intelligent discussion of the matter could be had at that time.

LODGE WOULD ABOLISH FUEL ADMINISTRATION

Massachusetts Senator Says Coal Direction Should be Turned Over to Secretary Lane and Francis Q. Peabody

What is regarded as the most logical criticism of the coal policy of the Administration came from Senator Lodge in an address in the Senate February 27. His conclusions are as follow:

"Let the idea of price fixing by law or edict for domestic consumption be, so far as possible, abandoned.

"Interfere as little as possible with the natural laws of supply and demand.

"Abolish the Fuel Administration and leave the management of the coal situation to the Secretary of the Interior and Mr. Peabody.

"Encourage the purchase and storing of coal for both domestic and industrial use during the summer when the demand is lowest and transportation easiest. I saw that the head of the Fuel Administration had come out in favor of our buying coal yesterday. The day before they had stated that we were to have it rationed.

"Above all, direct every effort to supplying rail-and-water transportation for coal during the summer, and at all times.

"Do not interfere with established methods of distribution, and do not make the fatal mistake of destroying distribution machinery.

"Enforce thoroughly the laws against profiteering, but in seeking to prevent undue profits do not permit the destruction of reasonable profits.

"Stimulate production. This can best be achieved by allowing reasonable profits."

Other extracts from Senator Lodge's remarks follow:

"It seems as if it were better to have as a judge one who knows the law than a layman, and this appears to be a sound general principle in the selection of any man for the performance of duties which affect the welfare of millions of people. The instinct of the untrained and ignorant beginner is not only to use, but to use in an extreme manner, the immense authority and power which have drifted into his possession. He is like a child with a mechanical toy. He wants to see the wheels go around. However honest his intentions may be, however patriotic his purposes, the results of the wild efforts of a beginner intrusted with enormous powers are almost certain to be prejudicial to the community at large.

"As I have already tried to show, there was no need of the Fuel Administration, no reason why it should exist at all, and the powers, however amiable the purposes of their possessor might be, have been employed in such a way as to make a bad situation worse and do nothing but harm. I know that in what I have just said I am open to the suggestion that my criticism is purely destructive. So it is, but it is the destruction which is intended to precede construction.

"I think I have shown that the vital point in the whole coal problem was the railroad situation. Instead of waiting until mid-winter to get rid of the chaos of the priority orders and giving a free hand to the Railroad War Board or to a director to deal with the railroad situation, we were saddled with the Fuel Administration, which could do nothing whatever about the railroad situation upon which all the difficulties practically hinged. So far as the coal situation was concerned, it ought to have been turned over to the Secretary of the Interior, within whose department it naturally came. Mr. Lane is a skilled administrator at the head of a trained organization requiring only the extension needful to deal with the new work. With the Secretary of the Interior as an expert adviser should have been placed Mr. Peabody, who was the head of the Advisory Committee. Mr. Peabody had been dealing with the question. He had made up, as I have pointed out, the best and fairest committee of advisers that I have heard of in my investigation, a committee upon which he had representatives of the miner, of the operator, and of the consumer. He showed on the stand, in my opinion, a wider knowledge and a more thorough grasp of the great and difficult problem involved in the coal supply than anyone who appeared before us. Secretary Lane and Mr. Peabody, through machinery which they had set in motion, had already made an arrangement tentatively which lowered the prices of bituminous coal nearly 100 per cent. and yet established only a maximum price sufficiently high to permit flexibility of prices beneath. In other words, they had interfered with the natural laws as little as possible. They are both eminently competent men. Why they were set aside I do not know. They are both undoubtedly Democrats.

"It is true that Mr. Peabody, by character, ability, foresight, and intelligence, has been honestly and largely successful in business. I am aware that such a record is thought objectionable by some persons, but it seems hardly a sufficient reason for his displacement from a position for which he was so peculiarly fitted. I cannot say why the coal problem was taken from him and the Secretary of the Interior and consigned to Dr. Garfield. It is not for me to try to scale Olympus and seek to penetrate its mysteries. It is enough to record the fact that the change was made. In my opinion, if the coal situation had been left in that way in the hands of Secretary Lane and Mr. Peabody, without building up a new fabric of clerks and deputies, a very large proportion of all the troubles we have had, and the suffering and loss which have been inflicted upon the American people during this winter, would have been avoided. If that change were made now, if we were to return to Mr. Lane and Mr. Peabody, despite all the complications which have been created by the Fuel Administration, I believe the situation would improve, and that by next winter, with the aid of the work done on the railroads, we should be practically without anxiety as to the production and distribution of coal."

REGULATIONS GOVERNING NEW TAXES ARE PROMULGATED

The regulations governing the administration of the personal income tax and the corporation income tax have been issued by the Commissioner of Internal Revenue. The new regulations govern the assessment and collection of income tax under the authority of the Acts of September 8, 1916, as amended, and October 3, 1917. There have been some changes necessitated by modifications in the law and in one or two instances, changes have been made in former rulings. The following are the principal differences and additions:

The question of how inventories shall be taken is left open to be covered by special regulation. Allowance of bonuses paid in addition to salaries as additional compensation is authorized by Article 138.

It is held that payments to nonresident alien employees for service rendered entirely in a foreign country, or other property located in a foreign country, are not payments of income subject to income tax in the hands of the recipient, as from a source within the United States.

Probably the most important rulings are those relating to dividends, to depletion in the case of oil, gas and mining properties and to dividend payments from depreciation and depletion reserves. The ruling as to the former is, in substance, that dividends paid during 1917 will be deemed to have been paid from 1917 earnings if such earnings during the year were greater than the dividends distributed, unless the corporations show that at the time of distribution of any particular dividend the earnings were not sufficient to cover.

A new ruling as an alternative to the existing one has been provided for computing the amount necessary to return capital invested in oil and gas wells, the rule being based upon an estimate of the units contained in the property, and fee owners and lessees are placed upon the same basis in so far as bonuses have actually been paid for leases.

With regard to mining corporations it is stated that in passing on values set up as of March 1, 1913 as a basis for depletion, the department will give due weight to market quotations of capital stock as of that date and to values stated by the corporations in their capital stock returns.

It is held that dividends paid out of depletion or depreciation reserves are in the nature of a liquidation dividend and are a return of capital to the stockholders and not taxable as income. Such dividends will not be so regarded, however, unless the income and surplus have been first distributed and the fact that their capital has been reduced or partly returned is made public in their published statements.

Provision has also been made reversing a previous ruling and holding as to stock returned to corporations upon reorganization for purposes of resale to raise working capital, that the proceeds when sold shall not be treated as income.

A provision of former rulings that forgiven debts constitute income to the debtor has also been stricken out.

ZINC PRODUCERS COOPERATE IN COMPILING STATISTICS

The response to the Geological Survey's request for the cooperation of zinc smelters in obtaining data for weekly confidential reports of production, stocks and commitments for the war uses of the Government have been entirely favorable. To insure uniformity, the following suggestions were made as to content and form of reports:

1. The week should be considered as closing at 7 p. m. Saturday, and stocks should be given as of Saturday at 7 p. m. However, if more convenient for your company, the week may be closed at some other hour, provided the same hour is taken each week.

2. Statistics should be given in short tons of 2,000 pounds.

3. A single report for all plants and subsidiaries may be made from the central office, or, if necessary to gain time, individual plants may report, at the option of the company.

4. Data on total commitments (spelter contracts outstanding) are desired for the period three to four months in advance of the time of reporting. For instance, all reports made in October should include commitments to January 31, 1918; all reports made in November should include commitments to February 28, 1918, and so on. The figures for commitments should be diminished in each weekly report by the amount delivered that week, and should be increased by the amount of new contracts made for delivery before the limiting date covered by the report.

5. The grades of spelter to be covered by the report are prime western and those defined in the navy specifications of June 1.

POPE YEATMAN IS PLACED IN CHARGE OF NON-FERROUS METALS

The Non-Ferrous Metals Department of the Raw Materials Division of the War Industries Board has been placed in charge of Pope Yeatman, succeeding Eugene Meyer, Jr. Mr. Meyer remains a member of the Raw Materials Division, but for the present is engaged in special work for the Secretary of War. Mr Yeatman is a consulting engineer of New York.

TRANSPORTATION BLOCKS DISTRIBUTION OF OIL

Priority List Announced by Oil Administrator—Supplies Said to be Sufficient for All Needs.

The presidential proclamation putting certain oil distributors under license is for the purpose of exercising adequate control in view of the fact that transportation facilities are becoming inadequate to supply promptly and satisfactorily all consumers now having contracts for fuel oil. The oil supply is abundant but the Army, the Navy, and the Shipping Board have found need for so many tank ships ordinarily employed in coastwise service that the country faces a possible temporary shortage of sufficient tonnage to care properly for the requirements of the industry.

Movement of oil tank cars has also been greatly interfered with of late, so that the problem of oil distribution is at the moment not an easy one to solve. It is obvious that in the event of insufficient transportation facilities it is highly desirable that the vital industries connected with the national welfare shall receive first consideration. Railways must be supplied with oil, not only for the operation of the locomotives using fuel oil but for plants dependent on fuel oil building locomotives and cars, Army and Navy requirements must also be cared for, as well as public utilities and domestic consumers.

With this idea in view certain oil companies have been placed under license with rules and regulations covering the distribution of fuel oil. The order of these priorities is as follows:

1. Railroads and bunker fuel.
2. Export deliveries or shipments for the United States Army or Navy.
3. Export shipments for the navies and other war purposes of the Allies.
4. Hospitals where oil is now being used as fuel.
5. Public utilities and domestic consumers now using fuel oil (including gas oil).
6. Shipyards engaged in government work.
7. Navy yards.
8. Arsenals.
9. Plants engaged in manufacture, production and storage of food products.
10. Army and Navy cantonments where oil is now being used as fuel.
11. Industrial consumers engaged in the manufacture of munitions and other articles under government orders.
12. All other classes.

When there is sufficient oil for all this priority list, of course, will not be operative. If however, there is a shortage, the priority immediately begins to operate as to Class 12, and in rotation each class of less number will be affected; and the priority will continue to operate so long as the shortage exists.

There is at the present time ample oil available for all possible needs, but there is not sufficient transportation available to carry it from the source of production to consumer.

MEDIATION COMMISSION ISSUES DETAILED REPORT

In a general analysis of the causes of labor difficulties, with particular reference to war needs, the President's Mediation Commission makes observations, in part, as follows:

"So long as profiteering is not comprehensively prevented to the full extent that governmental action can prevent it, just so long will a sense of inequality disturb the fullest devotion of labor's contribution to the war."

"War has only served to intensify the old derangements by making greater demands upon industry and by affording the occasion for new disturbing factors."

"Broadly speaking, American industry lacks a healthy basis of relationship between management and men."

"There is widespread lack of knowledge on the part of capital as to labor's feelings and needs and on the part of labor as to problems of management."

"Wage increases are asked for mostly in order to meet the increased cost of living, and such demands should be met in the light of their economic causes."

"Repressive dealings with manifestations of labor unrest is the source of much bitterness, turns radical labor leaders into martyrs, and thus increases their following, and, worst of all, in the minds of workers tends to implicate the Government as a partisan in an conomic conflict.

"We have failed in the full use and wise direction of our labor supply, falsely called 'labor shortage,' because we have failed to establish a vigorous and competent system of labor distribution."

"The overwhelming mass of the laboring population is in no sense disloyal. Before the war labor was, of course, filled with pacific hopes shared by nearly the entire country. But, like other portions of the citizenship, labor has adjusted itself to the new facts revealed by the European war. Its suffering and its faith are the suffering and faith of the Nation. With the exception of the sacrifices of the men in the armed service, the greatest sacrifices have come from those at the lower rung of the industrial ladder. Wage increases respond last to the needs of this class of labor, and their meager returns are hardly adequate, in view of the increased cost of living, to maintain even their meager standard of life."

"Too often there is a glaring inconsistency between our democratic purposes in this war abroad and the autocratic conduct of some of those guiding industry at home."

"Personal bitterness and more intense industrial strife inevitably result when the claim of loyalty is falsely resorted to by employes and their sympathizers as a means of defeating sincere claims for social justice, even though such claims be asserted in time of war."

JOBBERS LOSE COMMISSION, CHEAPER COAL PROMISED

Fuel Administrator Tells of Increase in Price so Operator Can Take Care of Middlemen

Reduction in the retail prices of both anthracite and bituminous coal is expected by the United States Fuel Administration to result from its decision to make the prices to coal retailers the same whether sold direct by the operators or through jobbers.

At the present time the jobber is permitted to add to the government price at the mine, a commission of from 15 to 30 cents a ton.

Under the new plan of the Fuel Administration that commission will be eliminated, but the price of coal at the mine will be increased slightly and the jobber will be required to look to the operator for his compensation. This increase, however, will not equal the commission now being charged by the jobber, and the retailer will be able to sell cheaper than he is now doing, Dr. Garfield says. This is the practice that was in use before the Government assumed control of the coal industry, and there are several reasons for returning to old methods, he also states.

Under the system of allowing the jobber a specific guaranteed commission, it developed, according to the Fuel Administration, that it was possible for some operators to adopt the practice of establishing subsidiary companies solely for the purpose of selling, thereby absorbing the jobbers' commissions. Another practice was said to be that of "swapping coal." Two producing companies might agree to act as jobbers for each other. Each might buy the coal of the other, and then sell at the mine price plus the jobber's commission. The operator who sold direct to the retailer was at a disadvantage because he was forced to bear the selling expense, and was not permitted to collect the jobber's commission.

Since the jobber is essential to the conduct of the coal business, the Fuel Administration has given study to means for insuring him a compensation for his services, while, at the same time, eliminating certain commissions which were ultimately paid by the consumer.

Officials of the Fuel Administration are now working on the question of the amount of increase to be allowed on the price of coal at the mines, and these will be announced before April 1, 1918, at which time they will go into effect.

The following announcement was made by the Fuel Administrator in regard to this subject:

"The United States Fuel Administrator makes the following announcement concerning the jobbers and jobbers' margins as defined in the President's order of August 23, 1917. The intention was to preserve a useful service at the hands of men experienced in the distribution of coal and to allow a reasonable charge for the service. It was the intention, furthermore, to deny this margin to anyone who did not actually render this service. Prior to the fixing of government prices, it was customary for the jobber to purchase coal at a lower price than that generally allowed to the consumer, and to make his profit by selling to his customers at the market price. After the fixing of the government prices, which included an allowance for jobbers' margins, unforeseen difficulties appeared. Many who were not entitled to the margin and did not perform any useful service nevertheless absorbed the margin. It is virtually impossible satisfactorily to police the situation as it stands. The United States Fuel Administrator is satisfied that the only sound basis is to include in the government price a proper allowance for selling expenses, and to provide for the compensation of the distributor in that way.

"The United States Fuel Administrator therefore announces that on and after April 1, 1918, the limit of compensation of the jobber is removed, but that his compensation must come out of the government price at the mine and may not be added to it. The mine prices will be republished prior to April 1, 1918, and at that time a proper allowance for selling expense will be included in the prices."

New Coke Prices Named

New prices for coke at ovens in certain parts of West Virginia, Pennsylvania, and Tennessee, have been promulgated by the United States Fuel Administration. The new prices are effective March 1.

Coke made in Preston County, West Virginia on the B. & O. Railroad between Tunnelton and Grafton and at Meridan, Barbour County, was fixed at $6.75 for blast furnace coke and $7.75 for selected 72 hour foundry coke. The former prices were $6.00 for the first named class of coke and $7.00 for the latter.

In the Flat Top or Pocahontas district of West Virginia, the maximum was placed at $8.00. The former prices were $6.00 for furnace coke and $7.00 for the foundry grade.

Selected foundry coke manufactured in Indiana County, Pa., from washed coal taken exclusively from the lower bench of coal of the upper Freeport seam is placed at $8.00 if the ash exceeds 10 per cent or the sulphur exceeds 9 per cent and $8.50 if the ash is less than 10 per cent and the sulphur is less than 9 per cent. The former price was $7.00.

By-product coke made in by-product ovens at Chattanooga, Tenn., shall be as follows: For run of oven coke, $8.25; for crushed coke more than 1 inch in size, $8.75 and for selected foundry coke, $9.25. The latter is a new operation and no comparative prices were available.

Harris & Ewing

BERNARD BARUCH

Newly Elected Chairman of the War Industries Board

GULF SULPHUR DEPOSITS IMPORTANT WAR ASSETS

A discussion of the sulphur situation has been issued by the Smithsonian Institution. It is written in popular language, and is as follows:

"To the average man on the streets, sulphur may suggest the springtime days of his childhood when he was fed copious spoonfuls of an evil-smelling concoction compounded of this substance and molasses, but he scarcely realizes the extent to which this yellow mineral product, to be seen in any drug store in a bottle labeled 'flowers of sulphur,' enters into the manufacture of the materials of everyday life that surround him. Yet it is not primarily because sulphur is necessary to convert the sap of a tropical plant into resilient and versatile rubber or wood pulp into miles of newsprint paper that this substance claims our attention at this time; rather because it is numbered among those substances of prime importance, absolutely essential to the carrying on of war, as entering into the very fabrication of explosives themselves. Hence it is not only a matter of curiosity, but one of urgent interest to inquire into the sources of this war mineral in the United States.

"In this connection the appearance is timely of a publication of the U. S. National Museum under the title 'Sulphur: An example of industrial independence.' This is by Joseph E. Pogue, of the Division of Mineral Technology, and presents, in a few pages, in a simple and nontechnical manner, the striking aspects of one of the most interesting mineral industries in our country today. A feature of particular value is a series of halftone plates, made not only from actual photographs of mining operations, but also from several views of a miniature model reproduction of a typical sulphur mine, with the underground disposition of the sulphur exposed to sight, so reproduced as to give the appearance of bird's-eye or aeroplane view of both occurrence and mining. This latter type of illustration is something entirely new in publications of this kind, and its educational value should appeal to all teachers desirous of obtaining a graphic picture of an industrial activity, and the means for passing on this visualization to others, as well as to all persons in any way identified with the numerous industries in which sulphur finds application.

"At the outbreak of the war in 1914, the United States was producing each year about 350,000 tons of sulphur, valued at a little over $6,000,000. This quantity was sufficient to supply not only the needs of this country, but contributed about 100,000 tons to European markets. With the development of war activities, however, the production has increased to meet the growing needs of munition makers, while the exports have decreased as a result of disturbed trade conditions, and the need for building up reserves of this essential material at home.

"It is a singular fact that the chief raw materials of explosive manufacture are localized in a remarkable manner, and sulphur is no exception to this rule. In the United States practically the entire supply comes from a number of deposits in Louisiana and Texas near the Gulf Coast. These deposits are similar in nature, and consist of a series of beds and lenses of pure sulphur at a depth of several hundred feet from the surface.

"The discovery of the occurrence of sulphur of this type was made as far back as 186[illegible], in connection with a well drilled for oil. All attempts at mining the sulphur failed, however, until some 15 years ago when a highly ingenious method was devised for mining this substance without recourse to the ordinary costly underground operations usually prosecuted in mining. This process makes use of the fact that sulphur melts at a relatively low temperature. By drilling a well through the overlying rock until the sulphur bed is tapped and then sinking a series of interpenetrating pipes through which superheated steam is forced, the sulphur is melted and forced to the surface as a hot liquid, where it is piped to large bins, into which it pours and cools. This process, which is known as the Frasch process after its inventor, has been descriebd as one of the triumphs of modern technology, and its successful application to the Gulf Coast deposits has, in the past 15 years, transferred the center of the world's sulphur industry from the Island of Sicily to the United States, making our nation absolutely independent of the rest of the world in this important particular.

"With the development of the world war, the sulphur deposits of the Gulf Regions have, of course, assumed special importance as supplying the sulphur needed in the manufacture of gun powder and other explosives. But, in addition to this, these deposits have quite unexpectedly, during the past few months, been able to meet and solve a critical resource problem arising out of the submarine campaign. This problem concerned the raw materials of the large and very vital sulphuric-acid industry, and arose from the fact that most of the several million tons of sulphuric acid used in this country was made from a sulphur-bearing mineral called pyrite, brought as ballast in quantity from large deposits in Spain. The restricted shipping conditions resulting from recent events, as a matter of course, seriously affected this source of supply, and since sulphuric acid is a product nearly as fundamental to industry as iron or coal, the situation bade fair to assume critical proportions. But it so happens that crude sulphur under emergency can also be used in making sulphuric acid, and accordingly the Gulf sulphur deposits have come forward to tide over the dearth of Spanish pyrite until the domestic supplies of pyrite, which are adequate but as yet only in part developed, can be brought up to a suitable measure of productiveness.

"There are numerous lean deposits of sulphur in many of the western States, but these as yet have practically no effect upon the output of the country. It is therefore certain that without the Gulf deposits and the ingenious method of making them available, this country would have scarcely been able to meet successfully the war needs of sulphur and sulphuric acid; which goes to show, of course, the pressing necessity for widespread appreciation and understanding of the importance of proper development of the mineral industries of our nation."

No Overtime Allowed

United States Fuel Administrator Harry A. Garfield has telegraphed the following to all State Fuel Administrators:

"Any increase of the working time on other days of the week by industrial establishments for the purpose of making up the lost time brought about by the Fuel Administration's order prohibiting work on Mondays will be considered by the United States Fuel Administrator as an evasion of that order and a violation of its spirit."

Embargo Revoked

No embargo against shipments of bituminous coal from the lake docks to North and South Dakota will be put into effect, the United States Fuel Administration announced today.

The Fuel Administration, after investigation, decided such a step would be inadvisable at this time. Notice of the abandonment of the proposed plan was communicated today to State Fuel Administrators in the western states most affected.

Michigan Gets More Coal

Fuel conditions in Michigan have improved to such an extent that the Federal Fuel Administration of that State has revoked its order which imposed numerous restrictions as to the use of fuel throughout that State.

"You may rest assured that your efforts on behalf of the coal industry are appreciated."

So writes Mr. George M. Jones, head of the extensive Amherst coal interests of West Virginia, in inclosing to the American Mining Congress a special report of the car service of the Chesapeake & Ohio Railroad during December and January which shows that on account of this poor service 4,665,305 tons was lost to the country.

The report which has been compiled by the transportation committee of the Guyan Valley Coal Operators Association which is headed by John A. Kelly, of Omar, W. Va., as chairman, and of which Mr. Jones is a member, also points out much data of interest in relation to the service which the C. & O. Railroad has given to the 448 mines along its lines in the months in question.

Messrs. Kelly and Jones, and their associates, are fully aware of the representations made, from time to time, within the past three months to the office of the Director General of Railroads, by William M. Conrad, assistant secretary of the American Mining Congress looking toward general improvement of the car service, and have been assured that there is to be no let up until they get a normal car supply.

Out of 51 working days in the two months in question, the tonnage actually loaded amounted to 19.08 days, while the tonnage lost was equivalent to 26.92 days.

Promptly on receipt of the report it was filed at the offices of Assistant Director General of Railroads Chambers and its contents also brought to the attention of Mr. F. G. Minnick, manager of the Eastern Railroads Car Pool with headquarters at Pittsburgh.

Even though the car service condition along the Chesapeake & Ohio Railroad has improved since the months included in the special report filed, Secretary Callbreath, of the American Mining Congress, has determined that the representatives of the organization must continue their vigilance at the offices of the Car Service Commission, in this instance looking toward a normal car supply in the section.

Many representative members of the Congress have mines located along the Chesapeake & Ohio Railroad, and in the representations which have been made by the representatives of the Congress to the national railway officials special emphasis has been placed upon the requirements of these special operations and the actual losses these mines were sustaining by reason of the inadequate car supply.

AGREEMENT REACHED AS TO ZINC PRICES

Maximum of 12 Cents Fixed for Grade A—no Regulation of Lower Grades Attempted

After investigation by the Federald Trade Commission as to the costs of production, the President has approved an agreement made by the War Industries Board with the producers of Grade "A" zinc, fixing a maximum price of 12 cents per pound f. o. b. East St. Louis, subject to revision on June 1, 1918, and also an agreement made by the War Industries Board with the producers of sheet and plate zinc fixing a maximnm price of 14 cents per pound for plate zinc f. o. b. plant and 15 cents per pound for sheet zinc f. o. b. plant, subject to the usual trade discounts.

The conditions are, first, that the producers of Grade "A" and of plate and sheet zinc will not reduce the wages now being paid; second, that they will sell to the Allies, to the public, and to the Government at the same prices; third, that they will take the necessary measures, under the direction of the War Industries Board, for the distribution of the zinc to prevent it from falling into the hands of speculators who might increase the price to the public, and, fourth, that they pledge themselves to exert every effort necessary to keep up the production of zinc so as to insure an adequate supply so long as the war lasts.

Among the zinc producers who conferred with the War Industries Board when the agreement was reached were:

A. P. Cobb, Edgar Palmer and W. S. Wardner of the New Jersey Zinc Co.; C. M. Loeb, the American Metal Co.; A. G. Mackenzie, Judge Mining & Smelting Co.; Otto Frahnknecht, Beer, Sondheimer & Co.; James A. Nelson, National Zinc Co.; W. H. Naugle, Electrolytic Zinc Co.; E. H. Wolff, Illinois Zinc Co.; H. H. Roseman, Hegeler Zinc Co.; S. Siegel, Eastern Zinc Refining Co. Inc.; S. S. Tuthill, American Spelter Corp.; J. H. Dietz, Ft. Smith Spelter Co.; William A. Cook, Matthiessen & Hegeler Zinc Co.; S. H. Lissberger, Trenton Smelting & Refining Co.; Oscar M. Hayman, Michael Hayman & Co.; J. R. Wettstein, United Lead Co.; Charles W. Baker and W. A. Ogg, American Zinc, Lead & Smelting Co.; N. H. Schwenk and T. Lewis Thomas, General Smelting Co.; E. W. Furst, Grasselli Chemical Co.; Arthur Day, United Zinc Smelting Co. and William Kenefick, Kenefick Zinc Co.

The copper producers' committee included R. L. Agassiz, Calumet & Hecla; C. F. Kelley, Anaconda Copper; Sidney Jennings, United States Smelting, Refining & Mining Co.; Joseph Clendenning, American Smelting & Refining Co. and L. Vogelstein, L. Vogelstein & Co.

POPE YEATMAN TAKES OVER NON-FERROUS MINERAL WORK FOR WAR INDUSTRIES BOARD

Pope Yeatman, consulting mining engineering, 111 Broadway, New York, who has just been placed in charge of the non-ferrous metals department of the raw materials division of the War Industries Board, succeeding Eugene V. Meyer, Jr., had been acting as consulting engineer to the Board ever since midsummer. In this capacity he has given the Board much technical advice, especially with regard to recommendations in the fixing of prices of non-ferrous metals.

Mr. Yeatman has been prominent in the mining field for many years, and is regarded as one of the highest authorities in the world on mining affairs and properties. For 10 years he was connected with the Guggenheim interests, giving up his work with these interests about two years ago to become associated with Edwin S. Berry, also a man of eminence in the mining field. Both were independent consulting mining engineers. Since the war began these gentlemen have dropped their practice entirely and now are giving up their offices at 111 Broadway. Mr. Berry has been commissioned a captain in charge of the Twenty-seventh Engineers, the mining regiment at Camp Meade, Md. Mr. Yeatman is taking his office staff with him to Washington to assist him in his government work.

Mr. Yeatman was born in St. Louis in 1861, and was graduated from Washington University, St. Louis, with degree of M.E. in 1883. Immediately he engaged in mining work in Mexico and in Colorado. In 1896 he went to South Africa and became mining engineer of the Consolidated Gold Fields of South Africa, Ltd., and later was made manager of the Robinson Deep Gold Mining Co., Johannesburg, South Africa. In 1899 Mr. Yeatman was made general manager of the Simmer & Jack Proprietary Gold Mining Co., Ltd., and from the same year to 1904 he was general manager and consulting engineer of the Randfoutein Estates Gold Mining Co., Ltd., the Transvaal.

In 1905 he returned to the United States and began his ten-year connection with the Guggenheim interests. He also served as consulting engineer to the Nevada Consolidated Copper Co., the Cumberland Ely Copper Co., the Steptoe Valley Smelting & Mining Co., the Chile Exploration Co., Chile, and the Braden Co., also of Chile. Mr. Yeatman is a member of the American Institute of Mining Engineers, the American Society of Civil Engineers, the Institute of Mining and Metallurgy, London, and various other scientific bodies. His new address will be Room 813, Council of National Defense Building, Eighteenth and D Streets, Washington.

Victor Rakowsky has returned to his home at Joplin, Mo., after spending several weeks in Washington, where he rendered splendid assistance to the mining industry of his district.

Harris & Ewing

EUGENE MEYER, JR.

Who is widely known among producers of metals. Until recently he had charge of non-ferrous metals for the War Industries Board.

ILLINOIS DISTRICTS ALLOWED INCREASE IN THEIR PRICES

Further price regulations and classification of coal mines have been announced by the United States Fuel Administration covering three mines in Illinois.

Selling prices fixed for the Moweaqua Coal Mining & Manufacturing Co., at Moweaqua, Christian County were as follows: Run of mine, 2.40; prepared sizes, $2.65; slack or screenings, $2.15.

Coal mined by the Assumption Coal Mining Company at Assumption, the same county, may be sold at the following prices: Run of mine, $3.00; prepared sizes, $4.55; slack or screenings, $2.15. The Assumption is a new mine and the price for the first named mine was fixed to make it upon the same basis as that of the northern field in Illinois.

The new regulation as to operations of the Spoon River Colliery Company at Ellisville, Ill., provides for the following prices: Run of mine, $2.65; prepared sizes, $2.90; slack or screenings, $2.40. The old prices at the Ellisville mine were $2.40; $2.65 and $2.15, respectively.

The operators who have complied with the Washington wage agreement will be allowed to add 45 cents per ton to the selling price named in the orders issued today.

SALT LAKE CITY MAN HOLDS IMPORTANT TREASURY POST

Mining men have every right to feel that they have a friend at court in matters which come under the jurisdiction of the Treasury Department. James H. Moyle, the newly appointed Assistant Secretary of the Treasury, is a man who has been in close contact with the mining industry throughout his life. He was born in Salt Lake City, where he obtained his early education in the public schools. Later he attended the State University of Utah, and then completed his education at the University of Michigan. He was graduated from the law school of the latter institution in 1885. Immediately thereafter he returned to Salt Lake City, where he began the practice of law. The year following the opening of his office he was elected county attorney. He was reelected to a second term. In 1888 he was elected to the Utah legislature. During the years following he served in numerous public capacities.

In 1904 Mr. Moyle was Democratic candidate for governor of his state. He lost with his party. In 1914 he was the candidate of the Democratic and Progressive parties of Utah for the United States Senate. In this race he all but unseated Reed Smoot, the incumbent. It was the good showing made by Mr. Moyle in this race, when it was thought that the position of Mr. Smoot was more than impregnable, that gave new hope to the Democratic party of Utah, and is conceded to have been an important factor in the state victory for that party.

For many years Mr. Moyle has been active in mining. At the present time he is president of the Cherry Creek Mining Company and vice-president of the Great Western Mining Company. He holds stock in a large number of metalliferous enterprises, and is also a director in the Old Capitol Petroleum Company. In Neveda he is interested in the Seven Troughs, the Cherry Creek and the Duck Creek districts, and in Utah is interested in the Park City, Bingham, Eureka, Big and Little Cottonwood and Ophir districts.

May Double Coal Output

Acting under the Alaskan Coal Leasing law, the Interior Department is endeavoring as rapidly as possible to develop the coal resources of that country, with the idea that whatever production is obtained soon will not only be of valuable aid to Alaska but will also be a factor in winning the war.

With a production of 50 000 tons in 1917 from the Matanuska field and the prospect that this output will be doubled this year, Secretary of the Interior Lane has announced that 19,000 acres of coal lands in the Nenana field are now ready for lease under the provisions of the leasing law.

WAR TRADE BOARD BUSY CARRYING OUT IMPORTANT WORK

The general policies followed by the War Trade Board and an outline of the Board's labors for 1917 in the control of export and import trade are indicated in the first annual report to the President, which the Board now makes public.

The mobilization of the economic arm of the United States and the effective use of trade restraints upon the Central Powers is here revealed in action. The language of the report shows a desire to proceed by agreement and negotiation with other countries, and to avoid even the appearance of coercion or retaliation in the Board's relation with neutrals.

With German traders and German comforters in neutral countries, however, there is no compromise indicated, but relentless isolation. The language of the report gives these intimations of policies and results:

"The activities of the Board are roughly divisible into three spheres, those relating to the control of exports, those relating to the control of imports, and those relating to enemy trade.

"The Board has sought, first, to conserve for ourselves, and for those associated with us in the war, such commodities as are required to maintain adequately the economic life of the several nations and to carry out their war programs. Other objects sought have been to prevent our commodities reaching the enemy, directly or indirectly, as by releasing like goods for the enemy, and to prevent commercial transactions between persons within the United States and an enemy, or an ally of the enemy.

"In undertaking to supply the food and other vital wants of neutral peoples, under carefully considered agreements, the Board has desired 'to prevent acute suffering in those countries, and to prevent them from falling under the economic power of the enemy.'

"The trade agreements the Board has regarded as being particularly important in the case of those European neutrals which are in trade relations with the enemy. Against these European neutrals, the report goes on to say, 'temporary embargoes have been enforced pending the securing of information indispensable to permit the Board to issue licenses.'

"An agreement has been concluded with Switzerland, assuring to the Swiss the periodic receipt of a stipulated grain ration and of other articles required to maintain the economic existence of the people of Switzerland.

"The Swiss government, on the other hand, gives satisfactory assurances against exportation to our enemies of imported commodities, and agrees to limit, in certain other respects, her trading with the enemy."

A still more definite achievement is discoverable in the Board's references to the northern European neutrals, where temporary embargoes are in force, pending the conclusion of comprehensive agreements. The report continues:

"Their exports of foodstuffs to the Central Powers have declined from last year's corresponding exports in amounts estimated at from 65 to 85 per cent, depending on the neutral, and there has been a decrease in the export of many other important commodities.

"In November, 1917, we became party to Great Britain's tentative agreement with Norway, as a result of which action on our part 1,400,000 tons, dead weight, of Norwegian shipping were chartered into the service of the United States and Great Britain for the period of the war. Shortly following, temporary agreements were concluded with Holland and with Sweden. That with Holland gives us the use, for periods up to 90 days, of 450,000 tons, dead weight, of her shipping which had heretofore, for a long period, lain idle. The agreement with Sweden gives us the use for three months of tonnage estimated at 250,000 tons, dead weight, which had not heretofore been employed in services useful to us.

"Specific accomplishments of this character are, however, far from constituting a full measure of the results achieved by the War Trade Board. The elimination of enemy advantage from our trade and, to a considerable extent, from that of the world, the securing and conserving of commodities essential to ourselves and those associated with us in the war, the bringing of shipping generally into the services most useful to us, these results cannot be accurately stated or appraised at the present time, nor have they been accomplished by any single act or agreement."

The report explains the use of bunker coal licenses, as being intended to assure the utilization of America's restricted supply of fuel primarily by ships performing services useful to the United States and its associates in the war.

Abolition of calls at Halifax for ships between United States and European neutral ports, which is foreshadowed in a paragraph dealing with the endeavors of the Board to reduce the necessary control machinery over sailings, has since been accomplished. "Letters of Assurance," heretofore issued by the British Embassy, are also no longer required.

The extent of the business under the control of the Board must be gathered from the fact that the Bureau of Exports has handled approximately 425,000 applications for licenses to export, and was, at the date of the report, passing upon between four and five thousand applications per day.

The Bureau of Imports, of more recent formation, has received to January 1, 5,279 applications for licenses to import, upon which 4,719 licenses, covering commodities of an aggregate value of $237,810,949, had actually been issued.

In order to guide merchants in their transactions with foreigners there was published in October an "enemy trading list" containing the names of individuals and associations in neutral countries who were enemies or allies of enemies. This list is not a fixed and unchanged classification, but is subject to constant revision, and the Board has been able to remove from the original list many firms who have cleared themselves of the taint of enemy character.

The personnel of the War Trade Board amounts to 1,526, the report shows. The total financial obligation incurred up to December 31 is $541,498.80. The Board is now housed in a number of detached buildings, but a new two-story building is nearing completion, which, with its 204,552 feet of floor space, will presently house all the bureaus at a great advantage in time and labor.

The membership of the War Trade Board at present is as follows: Vance C. McCormick, chairman, representative of the Secretary of State; Albert Strauss, representative of the Secretary of the Treasury; Alonzo E. Taylor, representative of the Secretary of Agriculture; Clarence M. Wooley, representative of the Secretary of Commerce; John Beaver White, representative of the Food Administrator; Frank C. Munson and Edwin F. Gay, representatives of the United States Shipping Board; Thomas L. Chadbourne, counsellor, and representative of the Secretary of State.

LACK OF CARS CAUSES MUCH LOSS OF TIME AT COAL MINES

The National Coal Association has issued a statement showing in detail loss in production due to car shortage, and pointing out the impossibility of bituminous coal producers meeting the country's requirements if they were not given cars to transport their product. The statement follows in part:

The entire country is still face to face with a serious coal shortage. Even a slight cold snap is all that is necessary to bring about a repetition of the suffering by the shortage of bituminous coal in January.

Production during the first two months of 1918, just ended, failed because of car shortage, to keep pace with production in January and February a year ago, by at least 3,000,000 tons. It fell more than 6,000,000 tons behind 1016 production for this period. The government's official figures place production in January and February, 1916 and 1917, at 91,782,609 tons and 88,100,198 tons, respectively.

Official figures are available for 1918 up to and including the week of February 9. They place production during this period at 57,771,946 tons. A liberal estimate of production from February 10 to 28 inclusive, based upon accurate reports to the National Coal Association, is 27,500,000 tons, which would bring the total 1918 production up to approximately 85,000,000 tons, the lowest in three years.

Car shortage and congestion has resulted in a lost output of about 31,000,000 tons of bituminous coal, the country over, since January 1.

Reports to the National Coal Association show that in the five weeks from January 13 to February 16, inclusive, almost 5,000,000 tons were lost because of car shortage and congestion in six producing districts alone. These figures follow:

Central West Virginia field	1,285,075 tons
Somerset County, Pa.	365,600 tons
Fifth and Ninth Districts of Missouri	478,230 tons
Eastern Ohio	889,200 tons
Indiana Coal Trade Bureau	629,093 tons
Pittsburgh Coal Producers Assotion	1,348,477 tons
Total	4,995,675 tons

Deplorable working conditions, due to car shortage, obtained in many of the largest producing fields. In the Central West Virginia field alone, during the seventeen working days ending February 25, an average of 6,312 men were idle every day. The total time lost during this short period was 107,297 days, or a total of 456 years for one man, measuring the average working year by 235 days, the highest recorded.

In the Guyan Valley field of West Virginia during the fifteen days ending February 25, the average number of idle men each day was 5,240 and the total time lost 78,594 days, a total of 334 years of one-man effort.

During this period thousands of open top coal cars were lying idle on some railroads, awaiting transportation to the mines. In the Philadelphia district alone, there were between 3,000 and 4,000 open top empties on hand, awaiting movement. This condition was caused partly by extremely severe weather conditions and partly by the urgent necesity for the transportation of grain which required preferential movement of thousands of empty box cars westward for grain loading.

Fertilizer Ingredients Under License

A presidential proclamation announced the intention to license the importation, manufacture, storage and distribution of the following necessaries: fertilizers and fertilizer ingredients, including sulphuric acid, phosphate rock, acid phosphate, bones (raw, ground or steamed), bone black, basic slag, sodium nitrate, ammonia sulphate, cottonseed meal, slaughter house tankage, garbage tankage, castor pomace, fish scrap, base goods, cyanamid, calcium nitrate, dried blood, acidulated leather, hair, hoof meal, horn dust, ground leather, other unacidulated ammoniates, potash salts, cement dust, blast furnace dust, kelp ash, kelp char, dried kelp, wood ashes, cottonseed hull ashes, potassium nitrate, tobacco waste, mixed fertilizers, sulphur, and all other fertilizers and fertilizer ingredients.

WARREN DISTRICT HAS RECORD COPPER OUTPUT

Produces 15,000,000 Pounds of Copper in January—Douglas Smelters Have Huge Output—Other Arizona News

By J. E. Corry

Bisbee, Ariz., February 2.—The Warren district will lead all others in Arizona in copper output for January, making from its own ores around 15,000,000 pounds. The figures will be close to the best in its history. From the smelters at Douglas there will probably be a record output of metal, notwithstanding some delays early in the month. February, although a short month, now bids fair to duplicate the high showing of January.

Except for the Clifton-Morceni district and Miami district shortage due to delayed recovery from strike effects, and to some losses in these and other districts due to supplies delayed by embargoes, January production in the state would have been around 83,000 pounds. As it is it will probably total upwards of 70,000,000 pounds. Operating forces in the different districts as now in employment measure up well in loyalty and appreciation of the larger obligations which have come upon them through the fact that the nation is at war, and are everywhere stretching a point bulking their daily work to assist the managements to give the Government all possible metal. The requirements of the Government for its own war work and that of its allies continue to absorb the bulk of the country's total copper output. Orders for future delivery to private consumers are made with the proviso that there will be delivery only in such part and at such times as the Government directs. Present deliveries to the trade are but a small part of that which it has asked and in greater part contracted for. That there will be any easing in demands for copper for war uses is not indicated. The miner is justified in feeling that for a long time to come two-thirds of every pound of ore he digs is going direct to the aid of those fighting the world's battle for freedom.

More cause apears to exist at the immediate time for fear that operations will be disturbed this year through supplies distribution than because of labor troubles, although enemies of the country are not lacking in one of the mining districts and after the German-Bolshivik fashion will continue busy with efforts to make disaffection. The supplies distribution factor, however, although a matter for some delays and much worry during a number of months, is probably yet to reach the real point of severity in the Southwest. Fuel oil has become increasingly difficult of obtaining in the quantities that it would be desirable to have on hand, while timber supplies have been decidedly checked. Steel and general supplies have not been hastened in transit by the various embargoes and government orders to this time. Purchasing agents are asking how it can be expected that congestion will be relieved and deliveries facilitated when they find themselves in receipt of notifications that embargoes have been raised and shipments made in bulk of orders that under normal conditions of railway operation would have been distributed over a period of a month or more. With all these accumulated shipments at once on the carriers it is understandable how congestion occurs en route, but not how it is alleviated. Representatives of purchasing departments of Arizona mining companies have been almost continuously on the road during the last several months trying to straighten out tangles and get delivery of urgently needed supplies, and everywhere they have met with others on like missions. Many a night's sleep has been lost and is being lost in the effort to keep the mines going.

The fuel oil situation gives occasion for immediate concern. It is hoped that with the active taking over of this division by Administrator Mark Requa of the Fuel Administration he will find a way to ease the present plight of the Arizona copper producers, who as a whole have been going on very scanty supplies from day to day. Their storage capacity is not at this time in use to the extent of a third and supplies on hand cover the needs of days only. Shutting down of power plants because of lack of fuel for the copper industry in the state would, of course, not mean the loss of a single day's production. Shutting down by reason of lack of fuel involves just as much loss of time and money as shutting down by cause of strike. The same output of ore, which cannot be made up, is lost, and there is most of the other trouble attending abrupt closing down to contend with. The Fuel Administrator is a western man and doubtless familiar with copper country conditions, which is a fortunate fact. It may save the copper districts from experiencing the hardship imposed upon eastern industrial centers by fuelless days. If Mr. Requa holds an adequate number of tank cars at the service of the mining districts and keeps them moving, there will be no trouble, for there is no shortage of oil on the coast. The trouble has been in a shortage of tank cars. Building of more tank cars is an urgent need before any of those now available to Arizona territory are released in response to pressure for more service in the east—always provided the copper is wanted, and there does not seem room for doubt but that it is most urgently required by the Government.

The supply of labor in the Warren district and in all other districts of the state is at this time fairly easy. Of certain classes there is an excess. Shortage has come about among mechanical forces, however, which is yet to be made up satisfactorily and for the making up of which the outlook is not bright. Shipyards calls for men at higher wages on government work than the copper producers can possibly pay on a 23½ cent copper market is mainly responsible for the shortage of mechanics at the mines and their plants. These men, skilled carpenters and mechanics, absolutely essential in the mining industry to get and maintain maximum operations, find quick employment in the shipyards and at the higher pay like the work better. There is no chance of getting them back except that the Government realizes that it is competing unfairly in wages with the copper industry and carries out the talked of plan of controlling the distribution of labor. If this is not done, the only other way it can adjust the situation will be by increasing the price of copper to such a figure as will enable the mines to pay as much as the shipyards.

Development enterprises in the state, except such as were abundantly financed or provided for in advance of the war, are curtailing their operations or have closed down. More of the small producers dependent upon the earnings of their shipments are closing down each week, finding it impossible to pay high labor costs, high material costs and high war taxes and keep going. More will follow, because 23½ cents does not allow a reasonable operating margin, or at least an attractive one, for even the big producer equipped with all the facilities for gaining economy in the making of his output. For new properties and small developed mines in need of money, discouragement is the present outstanding feature. This is particularly true in the face of the forthcoming Liberty Loan, which will be probably the biggest the Government has asked the public to finance. Those who ordinarily lead in financing new enterprises are engaged in converting their securities holdings into cash in order to be able to meet the call the Government is going to make upon them this time to stand in readiness to take large amounts of the new loan. The securities being sold are going into the hands of the investment public, the small investors, and with the Liberty Loan subscriptions they will make will load them up for a considerable time to come. Only properties which can show high merit and strong grounds for belief that they will, with further investment, speedily get into profitable production can expect to get new investment or additional funds under the existing conditions.

Operating against loose, careless, random investment in mines in a stronger measure probably than has any other single thing in the past is the fact that the income tax operation is showing up that a great deal of what seemed on the surface to represent profit from mining in the past was not in reality profit, but simply return of money invested, just as the profit of the merchant is not the whole of the $10,000 he may have received for his stock in six months, but only that part of the $10,000 which may be left after he has paid for the stock, and deducted his rent, insurance, wages, etc. Brokerage houses and enthusiastic financial writers have had a great deal to do with bringing about a false impression among investors as well as mine workers as to the huge earnings of mines, because they have presented only the receipts side and not the disbursements. Their expressions have come out mostly in response to inquiries dealing only with the profits side, that being the main interest of the public, and again they have not had clear statements to deal with. Expenses have been distributed in so many ways that the hasty observer has not considered, as worth nothing at all, depletion of resources, depreciation of equipment, taxes and the like being included among the overlooked things, although they make a huge total, that the writer and in not a few instances, the promoter have not really been to blame. The ultimate outcome will undoubtedly be of great value to legitimate mining through weeding out many of the abuses of public confidence and bringing the business to as high a plane of investment and confidence as prevails in other established industries. Meantime some worth-while properties may suffer neglect—some undoubtedly are. It is unfortunate that in this period of requirements for national protection of all the metal that can be developed and mined that there is not at the elbow of the mining industry to give it aid some such organization as the farmers have the use of in getting government loans.

The Globe district stands first in new development at the immediate time, Iron Cap continuing to prove up in its recent big find on its lower levels. Arizona Commercial and others in the district are encouraged as their lower levels and in exploration under way are finding justification for such feeling. In the Warren district Denn is continuing with pursuit of its stringers and other showings with attendant results that are altogether as satisfactory as the amount of work thus far done calls for. Delayed supplies, caused by embargoes have prevented getting down on the deeper levels of the mine, but this will soon be overcome. Among the smaller properties in the district the Boris has recently made some very encouraging development while Wolverine is continuing to look exceptionally good for the making of an important ore body in its Broken Promise area. In the Verde district at Jerome the more advanced developing properties are going ahead with unflagging energy and the bet that this district will make two or more new mines of importance within the year is still considered safe.

In the share markets, New Cornelia has been the center of a great deal of interest and commendation in the Arizona list. The property is making a performance that exceeds the best things publicity predicted for it by its sponsors in the constructive period. Its attractiveness as an investment is constantly appearing stronger. Ray Hercules, the next new producer booked for the state, has been the subject of much praise lately and is indicated to be in excellent way to justify all of it a little later. Every effort is now being bent at this property to get it into production by the middle of the year. Arizona Commercial and Iron Cap have also featured strongly in the markets recently. Others of the Arizona dividend earners have shared with the general industrial market in stiffening of prices. The impression is that advances will be checked with announcement expected this month of the terms and time of the new Liberty Loan flotation. It will be only natural if during the period of the loan subscription and for a while thereafter, the shares fall out of attention and to lower levels. Although the merit of the Arizona dividend earning coppers justifies a different course, it will be strange if they do not act to lower prices. For investment purposes they are bargains at this time, and have been ever since 1915.

ADVISES AGAINST CLOSING DOWN SO-CALLED NON-ESSENTIAL INDUSTRIES

Interesting personal conclusions of George N. Peek, the industrial representative of the War Industries Board, are as follows:

"The discussion of the 'limitation of non-essential industries' started with a very unfortunate misuse of words. The idea, as exploited in the newspapers, that the Government intended to cut off 'non-essential' industries, had in it possibilities for disaster.

"All industries are closely inter-related. For instance, certain so-called 'non-essentials' may be sent to South America to pay for commodities absolutely needed for essential products, and no large class can be arbitrarily cut off without seriously affecting general business conditions in the country. Certainly no industry is 'non-essential' to the workmen and capital employed therein, and when one considers that over ten million people and thirty billion dollars of capital are employed by 'non-war' industries, the need of caution in dealing with this problem is manifest.

"On the other hand, our industrial equipment is limited. We do not have materials, machinery, transportation, labor, or capital sufficient for fighting the great war and for normal business at the same time. The war must be prosecuted to the utmost, and business must shrink to provide the necessary equipment with the least possible injury to the business of the country.

"The first consideration of the nation and all of its industries must be to contribute the utmost toward winning the war, and to that end business must, where necessary, be diverted from its established channels into new channels; or if absolutely necessary, the flow must, during the war, be entirely stopped in order to provide adequate labor and material for war needs. It does not, however, follow that there will be *less business than usual*, but rather *more unusual business*.

"If the so-called 'non-essental' industries are 'cut off' many of them would be ruined and others permanently crippled.

"It would seem to be the immediate duty of the War Industries Board—

"1. To list, by classes or otherwise, and to define those industries whose operation as a war measure are of *exceptional importance*, classifying them, as far as practicable, in the order of their relative urgency, measured by the extent of their contribution, directly or indirectly, toward winning the war.

"2. To consider carefully, and, after due notice and hearings, to determine what are the less important industries, measured by the extent of their contribution, directly or indirectly, toward winning the war.

"3. To promulgate such findings and to prepare, present, and, if practicable, enforce such definite and concrete plan or plans as will result in—

"(*a*) Stimulating the operation of industries of exceptional importance.

"(*b*) Curtailing the operation of the less important industries or, *in the alternative, encouraging such industries so to change their operations as to produce war needs.*

"(*c*) Conserving the supply of essential raw materials as reserves to be drawn upon to meet the war requirements."

WHITE HOUSE COAL SHOVELS TAGGED BY SCHOOL CHILDREN

President Wilson's coal shovel was tagged in front of the Executive Building of the White House, thus setting the mark for "Tag Day" which was observed throughout the United States. The coal shovels of governors of States, mayors of municipalities and other prominent individuals were tagged by the school children everywhere.

The two White House shovels were tagged by William Edward Furey, patrol leader of the Boy Scouts, and by Miss Helen Margaret Tew, each of Washington. These children were escorted by a company of boy scouts, their school friends and a small body of teachers. Secretary to the President, Joseph Tumulty, United States Fuel Administrator Harry A. Garfield, P. B. Noyes, Director of Conservation of the Fuel Administration were present.

Erecting Mill on Graphite Mine

The Crystalline Flake Graphite Co., at Ashland, Ala., is erecting a mill to handle its graphite ores. Operation is expected to begin by March 15. Part of the equipment has been ordered from The Denver Quartz Mill & Crusher Co., Denver, Colo., and includes that company's No. 2 mill. R. E. Meade & Co., engineers, Ashland, Ala., have charge of construction.

FUEL FOR WINDOW GLASS MAKING IS CUT DOWN

Garfield Issues First Order Curtailing Fuel for Specific Industry—Window Glass Output to be Cut 50 Per Cent

After nearly three months of investigation and discussion with the interests involved, Fuel Administrator Harry A. Garfield recently issued an order limiting the use of fuel for the production of common window glass to 50 per cent of the amount manufactured in 1917.

A survey of the field indicated that not more than five million boxes of window glass would be used in 1918 and that competitive conditions were likely to result in an overmanufacture of this material by at least two or three millinon boxes, probably more. Each manufacturer was willing in the general interest to reduce the output to the extent mentioned, if assured that his competitors would be bound by the same restrictions.

Representatives of the workmen have taken part in the discussion and have agreed to make their part of the sacrifice. The order was delayed until this patriotic agreement had been made practically 100 per cent complete.

The reduction in output over last year's operation provided by the order, means a saving of 500,000 tons of coal and the removal of at least 18,000 carloads of merchandise freight from the railroads.

The United States Fuel Administration takes the position that in the present condition of shortage no fuel must be used to manufacture any greater quantity of finished products than will be needed this year; that factories canot be permitted fuel, transportation, and labor to manufacture a surplus of products to be piled up for sale next year.

The Fuel Administration is carrying on a series of conferences covering all industries which use large quantities of fuel, with a view to learning the requirements of each line during 1918. The industries themselves are playing a leading part in these discussions. The aim of the Fuel Administration is to arrive at a percentage of the production which, under the circumstances, will be satisfactory to the manufacturers and their workmen, but which will not represent a consumption of fuel for the manufacture of supplies not needed for the current year.

It is through this system of scientific limitation, together with large economy in the methods of using fuel, that the Fuel Administration expects to supplement the production of coal this year. It is hoped, as the railroads strengthen their facilities, that it will be possible to mine and transport a larger quantity of coal this year than last, but it is through these methods of reducing consumption that a repetition of this year's shortage is to be absolutely prevented.

O'DONNELL TO AID REQUA IN STIMULATING OIL OUTPUT

The appointment of T. A. O'Donnell, of Los Angeles, to take charge of the oil production problem, has been announced by the Oil Division of the United States Fuel Administration. Mr. O'Donnell thus becomes one of the chief aids of Mark L. Requa, head of the Oil Division of the United States Fuel Administration. For many years he has figured prominently in the development of western oil properties, and through a very intimate knowledge of the oil fields, he will seek at once to establish a relationship between the Government and the producers of oil that will help materially in winning the war by assuring ample production.

Director Reoua, announcing Mr. O'Donnell's appointment, stated he confidently expects the hearty cooperation of the industry in the big problems ahead, to the end that "a thoroughly satisfactory and commonsense policy may be finally adopted."

"I am expecting that the oil industry will, to a great degree govern itself wisely and conservatively, and that it will recognize the necessity of maintaining fair and reasonable prices and cooperating to the fullest extent in supplying most efficiently the products of petroleum needed to meet the requirements of our own Army and Navy and of the Allies," Mr. Requa said.

Mr. Requa emphasized the point that the obligation of the oil division is to assist the industry in accomplishing ends that cannot be attained by the industry alone and to encourage, stimulate and harmonize all branches; but that this conception under no circumstances involved the taking over of trade operations or in any way embarrassing such operations so long as they are wisely, conservatively and patriotically administered. Mr. Requa in a personal appeal to all of the oil producers of the country today expressed the hope that close and harmonious relations between the producers in the fields and the Oil Division be established and that they will work out constructive proposals which can be put into actual operation.

VOLUNTEER OFFICIALS TO MAKE UP OIL DIVISION

As far as is possible the official organization of the Oil Division of the United States Fuel Administration will be made up of volunteers. The volunteer service has been a feature of both the Food and Fuel Administrations and M. L. Requa, director of the Oil Division, announced that his force would largely be made up in the same way. Mr. Requa stated that he hopes to be able to equip the oil division, practically in its entirety, with volunteer officials.

Harris & Ewin.

W. S. BLAUVELT

Head of the Coke Division of the United States Fuel Administration

W. S. Blauvelt was connected with the Semet-Solvay Company, a large by-product oven operator, for fifteen years. He had charge of their by-product coke plant at Detroit. He left the Semet-Solvay Company in the summer of 1915 and, with Mr. Steere and several others, formed the Steere Engineering Company, with which Company Mr. Blauvelt acted as consulting engineer. He is an authority on natural and producer gas, having spent a god deal of his time in this field. He is also an authority on the by-product coke business.

According to a statement issued by the Bisbee Daily Review, Arizona's copper production for 1917 brought $200,000,000. Partial figures of disbursements of the copper producers include $62,000,000 paid out in wages; $21,000,000 Federal tax; $7,000,000 county and State tax; $24,000,000 increase in cost of supplies over 1916; $44,000,000 in dividends, making a total of $158,000,000. This amount includes nothing for fuel, timber, steel, new equipment, etc., except the advanced cost over 1916, and nothing for depreciation of equipment and exhaustion of ore bodies, no allowance for interest charges, salaries, transportation charges, electrolytic treatment of copper, marketing expenses, and other smaller items of expense.

TIN IMPORTS INCREASE DESPITE MANY DIFFICULTIES

Imports of tin into the United States during the calendar year 1917 showed a slight increase notwithstanding the difficulties experienced by American importers in getting foreign export licenses and the fact that the importation of this metal is controlled by our own government.

Including the approximate content of imported ore, but not including Alaskan ore, the total imports of tin in 1917 amounted to 68,996 long tons, against 66,624 tons in 1916, according to figures made public by the Bureau of Foreign and Domestic Commerce, Department of Commerce.

Of our 1916 imports, 49,415 tons, or 74 per cent of the total, came from England and the Straits Settlements, whereas in 1917 only 41,463 tons, or 60 per cent, came from these two sources. Imports from the Dutch East Indies increased to 14,148 tons, or 20 per cent of the total, Australia, China, and Bolivia supplying most of the remaining 20 per cent.

A large part of our Straits tin imports came by way of England as usual, but it is expected that the present year will witness an increase in direct shipments.

FIRST POTASH PERMITS ISSUED UNDER NEW LAW

Notwithstanding the fact that large deposits of potash exist in this country, before the war practically the world's supply of potash came from Germany, which has immense deposits. Potash deposits on public lands have not been heretofore developed because all such lands known to contain potash deposits have been withdrawn from acquisition.

Under the recent law permits may be issued for the exploration for potash on tracts of land not to exceed 2,560 acres. These permits run for two years. If potash of commercial quality and quantity is discovered, the permittee will be given a patent for one-fourth the land covered by his permit, and the remainder may be leased by the Government to others. Secretary of the Interior Lane has issued the first prospecting permit under this law, covering 2,560 acres of alkaline marsh land in the desert region of Inyo County, California, and the permittee expects to begin explorations by sinking wells. Other permits will be issued in the near future.

To Report on Alabama Situation

Rembrandt Peale and John P. White, representatives of operators and labor in the Fuel Administration, have gone to Birmingham, Ala., to investigate and report on the differences which have arisen between operators and miners in some of the Alabama mines.

INTERDEPARTMENTAL BOARD ON MINERALS IS ORGANIZED

"In view of the large official use now being made of all available information regarding raw materials essential to the Government, it has been found highly desirable to systematize the handling of official inquiries regarding minerals and mineral products. The subject of the war minerals has required a notable increase in the personnel of the bureaus that had in the past been directly concerned in mineral investigations, and a simple and informal, though effective, coordination of the activities of all engaged and interested in these investigations has been undertaken. To this end, a representative committee for conference has been named, the purpose of which is in no wise to curtail or even to supplement activities already existent, but rather to make the equipment and personnel better known and more readily available to other organizations and the increased activities most effective in operation. This body of representatives from the bureaus, boards, and departments interested will serve principally as a clearing-house to secure the prompt preparation and transmittal of data from each authoritative source without duplication of effort."

The above statement, by Dr. George Otis Smith, Director of the United States Geological Survey, tells of a step which all are agreed will be most helpful in preventing duplication of work in Washington.

At a meeting on February 8, at which representatives of the War Industries, War Trade, and Shipping boards and the Geological Survey and Bureau of Mines were present an informal organization was effected, with George Otis Smith as temporary chairman and A. G. White as temporary secretary, and the following representatives were announced for membership on the proposed committee: S. H. Salomon, representing the War Trade Board; J. E. Spurr, representing the Shipping Board; E. S. Bastin, representing the Geological Survey, and A. G. White, representing the Bureau of Mines.

It was voted to invite representatives from other branches of the departmental service, to meet on February 14, for the purpose of effecting the permanent organization. This was done, and resulted in the formation of the Joint Information Board on Minerals and Their Derivatives. The board is comprised as follows:

A. B. Adams, Treasury Department, Internal Revenue; H. R. Aldrich, War Industries Board, Division of Statistics; Edson S. Bastin (secretary of board), Department of Interior, United States Geological Survey; Frederick W. Brown Department of Agriculture, Bureau of Soils; R. M Chapin, Department of Agriculture, Bureau of Animal Industry; Melvin T. Copeland, War Industries Board, Commercial Economy Board; Thomas Cox, United States Fuel Administration, Oil Division; Frederick P. Dewey, Treasury Department, Bureau of the Mint; H A. Havens, Department of State, Consular Service; John K. Haywood, Department of Agriculture, chairman, Federal Insecticide and Fungicide Board; Commander R. S. Holmes, Navy Department, Bureau of Ordnance; C. C. Houghton, Federal Trade Commission, phone Main 8940, branch 45; Henry Hubbard, Department of Commerce, Bureau of Standards; Lincoln Hutchinson, War Trade Board, Bureau of Imports; Karl F. Kellerman, Department of Agriculture, Bureau of Plant Industry; Lieut. Col. R. P. Lamont, War Department, Ordnance Department, United States Army, Sixth and B Streets Northwest; C. K. Leith, United States Shipping Board, Room 4228, Interior Department Building; C. E. Lesher, United States Fuel Administration, Statistical Department, Coal Division; Charles W. Merrill, United States Food Administration, Division of Chemicals; Harvey S. Mudd, Department of Interior, Bureau of Mines; Lieut. Comdr. N. W. Pickering, Navy Department, Bureau of Ordnance, Interior Department Building; G. F. Richardson, Office of Director General of Railroads, Car Service Division, Interstate Commerce Building; Guy C. Riddell, United States Tariff Commission; S. H. Salomon, War Trade Board, Bureau of Research; C. D. Snow, Department of Commerce, Bureau of Foreign and Domestic Commerce; J. E. Spurr, United States Shipping Board, Room 4228, Interior Department Building; L. L. Summers, War Industries Board, Division of Raw Materials; F. G. Tryon, War Industries Board, Division of Statistics; W. W. Skinner, Department of Agriculture, Bureau of Chemistry, and Pope Yeatman (chairman of board), War Industries Board, Division of Raw Materials

NO ACTION ON MINERAL CONTROL BILL EXPECTED SOON

No early action on any measure providing for the control of mineral products is expected. A bill, carrying an appropriation of $50,000,000, intended "to provide further for the national security and defense by encouraging the production, conserving the supply, and controlling the distribution of those ores, metals, and minerals which have formerly been largely imported, or of which there is or may be an inadequate supply," has been drafted but is being altered by various officials. It will be some time before the bill is even introduced. Before any action is taken by Congress ample opportunity to be heard will be granted all interests affected.

Makes Significant Statement

Senator Thomas, of Colorado, made the following significant statement on the floor of the Senate recently:

"If I am correctly informed—and I think I am—a very large proportion of the prerogatives of the Secretary of the Interior has been transferred to other departments in practice."

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DISTRICT REPRESENTATIVES OF FUEL ADMINISTRATION ARE NAMED

District representatives to serve in principal coal producing regions, are charged with the duty of arranging with shippers and mines for full reports relating to production, working time, car supply, shipments and free coal, Administrator Garfield has directed all representatives that full reports bearing upon these matters must be sent to Washington at the end of each week. The district representatives are charged with the duty of allotting emergency orders from the Fuel Administrator among the operators in their respective fields.

Fuel Administrator Garfield has announced appointments as follows: C. E. Reed, of Louisville, Ky., as district representative for the coal fields in western Kentucky; H. N. Taylor, of Kansas City, as district representative for the coal fields of Arkansas, Iowa, Kansas, Missouri, Oklahoma and Texas; John G. Brydon, Somerset County, Pa., on or tributary to the B. & O.; G. D. Kilgore, at Norton, Va., will be district representative for Dickinson, Lee and Wise Counties, Va., and Russell County from Coulwood, west; R. A. Hord, of Lexington, Ky., for the Hazard coal field in Perry, Breathitt and Lee Counties in Kentucky; F. B. Reimann, of Butler, Pa., for the coal fields of Pennsylvania in Armstrong, Butler, Clarion and Mercer Counties, the northeastern sections of Lawrence County, and the extreme southwestern corner of Indiana County along the Pennsylvania Railroad; R. W. Gardiner, of Pittsburgh, Pa., for the coal fields of Pennsylvania in Allegheny, Greene and Washington Counties, Westmoreland County west of and along the Youghiogheny River, and the extreme northwestern corner of Fayette County; W. R. J. Zimmerman, of Charleston, W. Va., for the New River coal field in southern West Virginia, comprising operations on the Chesapeake & Ohio Railway south and east of Hawks Nest, and all operations on the Virginian Railroad; E. J. Howe, at Bluefield, for the Tug River and Pocohontas coal fields in southern West Virginia and the Clinch Valley and Virginia anthracite fields in Virginia, comprising all operations on or tributary to the Norfolk and Western Railway in West Virginia east of Panther, and embracing Mercer County and parts of McDowell and Wyoming Counties, W. Va., and Tazewell, Montgomery, Pulaski and Russell (east of Coulwood on the N. & W.) Counties, Va.; C. M. Roehrig, of Ashland, Ky., for the counties of Boyd, Carter, Floyd, Johnson, Letcher; for the county of Pike except operations on the Norfolk & Western Railway; J. P. Cameron, of Altoona, Pa., for the coal fields of central Pennsylvania. Three assistant district representatives under Mr. Cameron have been named. They are Messrs. John Lloyd, Jr., Harry B. Scott and Samuel A. Rinn. Producing territoy has been assigned to these assistants as follows: John Lloyd, Jr., Altoona, Pa.,—Huntington and Bedford Counties; operations in Somerset County served by the Pennsylvania Railroad, and operations of the Pennsylvania Railroad between Crosson and Blairsville as well as the South Fork Division and the Indiana branch. Harry B. Scott, Phillipsburg, Pa.—Center County, Cambria County (except that part listed above), eastern part of Indiana County and all operations in Greenfield County tributary to the New York Central and Pennsylvania Railroads. Samuel A. Rinn, Punxsutawney, Pa.—Operations on the Buffalo, Rochester & Pittsburgh railroad in the western half of Indiana County; operations in Armstrong County on and tributary to the Buffalo, Rochester & Pittsburg and the Buffalo & Susquehanna Railroads.

OREGON'S MINERAL OUTPUT FALLS OFF DECIDEDLY

A preliminary estimate of the production of metals from Oregon mines in 1917, compiled by Charles G. Yale, of the San Francisco office of the United States Geological Survey, shows a material decrease from that of 1916. The output of gold in 1916 was $1,902,149, and the estimated output in 1917 is $1,466,419, a decrease of $435,760. The output of silver in 1916 was 231,342 ounces, valued at $152,223, and the estimated output in 1917 is 115,697 ounces, a decrease of 115,645 ounces in quantity and of $58,046 in value. The output of copper in 1916 was 3,501,886 pounds, valued at $881,144, and the estimated output in 1917 is 1,508,639 pounds, valued at $410,349, a decrease of 1,993,247 pounds in quantity and of $470,795 in value. A small quantity of lead was produced in 1916, but no production of this metal has been reported for 1917.

There are about 100 productive mines in Oregon, and although two-thirds of them are placer mines, the larger part of the output of gold comes from the deep mines, and, of course, virtually all the output of the other metals. There were no important discoveries in any of the mining districts of Oregon in 1917, and no great increase in the output of any of the more productive properties. The entire output of ore from all the deep mines combined does not exceed 160,000 tons. Most of the placer mines are worked by the hydraulic system, but the three dredges now in use produce far more gold than all the other placer operations combined. The largest output of gold and other metals in 1917 came, as usual, from Baker county, which produces annually about 90 per cent of all the gold mined in the State. Josephine county is next in production.

To Build New Powder Plants

The War Department has announced the completion of plans and contracts for the construction of two smokeless powder plants, each to cost approximately $50,000,000.

These plants will be located at Charleston, W. Va., and Nashville, Tenn. Work has already begun on the Charleston plant, which will be constructed by the Government under contract with the Thompson-Starrett Company, of New York.

A contract has been signed with the DuPont Powder Company for the construction of the plant at Nashville. The construction work will be done by the DuPont Engineering Company, a subsidiary of the DuPont Powder Company.

The estimated capacity of each plant is 500,000 pounds of powder per day.

NEW PRICE SCHEDULE ALLOWED IN VIRGINIAS

An order containing further classifications of bituminous coal mines in Virginia and West Virginia, on the lines laid down by the President in fixing prices of coal, has been issued. The order affects coal mined in Kenova and Thacker fields, located in Mingo County, the extreme southern part of Wayne County, the extreme northwestern part of McDowell County, West Virginia and the extreme northern part of Buchanan County, Virginia.

The new price fixed for those fields are: Run of mine, $2.40; prepared sizes, $2.65; screenings or slack, $2.15.

The prices fixed in the President's original price proclamation were: Run of mine, $2.00; prepared sizes, $2.25; screenings or slack, $1.75. The new prices are effective February 7, at 7 a. m.

Operators who have complied with the terms of the Washington wage agreement may charge an additional 45 cents per ton above the new selling prices announced today.

Plan to Utilize Coal Products

One of the scientific bureaus of the Government has analyzed the coal situation from an entirely new viewpoint, and offers a means whereby the householder may eventually obtain his domestic fuel supply at a fraction of what he now pays. How this may be accomplished is expressed in nontechnical language, in a short pamphlet entitled, "Coal: The Resource and its Full Utilization," by Chester G. Gilbert and Joseph E. Pogue,which has just been issued by the Division of Mineral Technology of the United States National Museum, under the direction of the Smithsonian Institution.

The gist of the plan lies in the fact that ordinary soft coal, instead of furnishing heat alone, can be made to yield five products—artificial anthracite, gas, ammonia, benzol and coal tar—all of commercial value. It is proposed that the municipal gas-plant operated as a public utility, be enlarged so as to treat all the coal ordinarily used by the community, with the production of the five products mentioned. By thus centralizing the utilization of coal and employing all the values contained in it, such great economy may be affected as to yield a really cheap domestic fuel, the authors state.

Complaints Being Investigated

Investigation is being made of complaints which have been received by the United States Fuel Administration that operators in some of the bituminous coal fields are charging an excessive price for coal under contracts made before August 21, 1917, embodying prices below those fixed by the President, which contained no sliding scale of labor charges.

Stocks of Bromine Low

Some of the asphyxiating gases that are used so extensively in the European war contain bromine, a heavy brown liquid which gives off a vapor that attacks the nose and throat and has a very harmful effect on the eyes. This same liquid is made into salts that are widely used in peaceful pursuits, as bromide of silver used in photography, and bromide of potassium used in medicine for treating nervous diseases. Bromine was extracted from bittern at eleven plants in Michigan, Ohio and West Virginia in 1917. According to R. W. Stone, of the United States Geological Survey, Department of the Interior, about 903,860 pounds of bromine was produced and sold at these plants in 1917, an increase of 215,600 pounds from the production in 1916. During 1917 there has been a large decrease in price of bulk bromine, which was quoted in the New York wholesale market at $1.40 to $1.50 a pound in January, 1917, but is now quoted around 60 cents. The present price, however, is 100 per cent higher than the price which prevailed in 1913, when bromine sold for 25 to 35 cents a pound.

The stocks of bromine on hand at the producing plants December 15, 1917, were very low, amounting only to about 7,000 pounds. The productive capacity of the plants, however, is so great that much more bromine could easily be made, for the eleven plants that were in operation in 1917 and one plant that was idle could produce more than 975,000 pounds of bromine in a year, and could probably make a million pounds by working full time. Some of the plants that were in operation in 1917 were idle more than half the year.

At a recent meeting of the Board of Directors of the Worthington Pump and Machinery Corporation, C. P. Coleman, was elected president.

Weight of Coal

A bushel of bituminous coal is considered in most coal mining states to weigh 80 pounds. Bituminous coal ranges in weight, according to kind, from 80 to 85 pounds per cubic foot. Roughly speaking, therefore, 1 cubic foot of coal in the solid would produce 1 bushel of broken coal.

The standard ton in this country for selling bituminous coal is 2,000 pounds. There are, therefore, 25 bushels in a ton. It is not usual to use the bushel as a method of measurement.

Rushing Coal to New England

Sixty ships are now engaged in carrying coal for the relief of New England and shipments of bituminous coal for factories in that territory are being largely increased, according to reports to the United States Fuel Administration.

Tug River Prices

Further classifications of bituminous coal mines have been announced by the United States Fuel Administration for the Tug River, West Virginia district, and the Clinch Valley No. 1 or "Upper Clinch" districts in Virginia.

The Tug River prices fixed are effective in mining operations on the Norfolk & Western Railroad west of Welch to Panther, including branches except Newhall, Berwind, Canebrake and Hartwell.

The new prices are: Run of mine, $2.40; prepared sizes, $2.65; slacker screenings, $2.15. The old prices were: Run of mine, $2.00; prepared sizes, $2.25; slack or screenings, $1.75.

The "Upper Clinch" prices as fixed are: Run of mine, $2.50; prepared sizes, $2.75; slack or screenings, $2.25. The former prices in this field were the same as the old prices in the Tug River field. The order as to the "Upper Clinch" district covers operations on the Norfolk & Western, Hockman to Finney inclusive.

Operators who complied with the Washington wage agreement will be permitted to add 45 cents to the mine prices.

State Fuel Administrators Meet

State Fuel Administrators from the eastern States met with United States Fuel Administrator Garfield recently in a regional conference. The conference began the consideration of proposed plans for handling the nation's coal supply in the next coal year, which begins April 1.

Those present included: J. C. Harlan, of Maine; Richard H. Jenkinson, of New Jersey; William Potter, of Pennsylvania; Ferdinand A. Meyer, of Maryland; Geo. H. Holmes, of Rhode Island; H. J. M. Jones, of Vermont; Chas. H. Ten Weeges, of Delaware; E. F. Calladay, of the District of Columbia; Clark Williams, representing Albert H. Wiggins, of New York; and Reeve Schley, of New York; John Tinney, representing Chas. M. Floyd, of New Hampshire; and William K. Prudden, of Michigan.

RIGHTS OF LOCATOR

The posting of a notice on the public land and claiming a certain designated portion thereof as a mining claim, recording the notice and doing so-called assessment work without a discovery of mineral, is a speculative proceeding conferring no rights upon the pretended locator as against the government, although so long as such pretended locator remains in possession and with due diligence protects work toward discovery he may be entitled to protection against all forms of forcible, surreptitious or clandestine entry and intrusion upon such possession by a stranger.

United States *vs.* Midway Northern Oil Co., 232 Federal, 619, p. 624.

METHODS PRESCRIBED FOR SETTLING FOR COAL DIVERTED IN TRANSIT

The Fuel Administration recently issued a regulation providing two methods either of which may be adopted in arranging settlement for coal diverted while in transit upon order of the United States Fuel Administrator. The order follows:

"Bituminous coal shipped from the mines prior to January 15, 1918, and diverted in transit on orders of or by authority of the United States Fuel Administrator, so that it was not received by its original consignee, shall he paid for by the party receiving the coal to the owner thereof (either shipper, jobber or original consignee as the case may be) by agreement between the parties in interest on either of the following bases as they may elect, and if they are unable to agree then in that one of the following bases which the party who was the legal owner of the coal at the time of such diversion may elect.

"1. At the going government price at the time and place of shipment, and in addition thereto the jobber's commission, if a jobber was the owner, or if the owner purchased through a jobber the coal so diverted and has paid or is legally liable to pay the jobber's commission thereon; or

"2. At the contract price at which the coal so diverted was shipped or sold under a bona fide contract enforceable at law, and in addition thereto the jobber's commission, if a jobber was the owner, or if the owner purchased through a jobber the coal so diverted and has paid or is legally liable to pay the jobber's commission thereon.

"Upon receipt by the United States Fuel Administration (Transportation Department) prior to March 1, 1918, of a written request therefor, showing that settlement between the shipper or jobber of the coal so diverted, and the party to whom such coal was diverted, has been made on the basis of paragraph numbered (1) hereof, instead of on a higher contract price under paragraph numbered (2) hereof, conditioned upon replacement by the shipper to the original consignee of an equal number of cars of coal at the contract price, and that the original consignee has assented to such settlement, the United States Fuel Administrator will arrange to have supplied to the original shipper prior to April 1, 1918, if practicable, cars for the purpose of enabling the shipper to make such replacement in addition to his mines' distributive share of available cars

"In any case where settlement has already been made at the going government price for any diverted coal, the parties will be deemed to have selected the basis of paragraph (1) above, and if the shipper in any such case, in which the coal was shipped to the original consignee at a higher price under a bona fide and enforceable contract, files a request with the United States Fuel Administration, Transportation Department, in accordance with the provisions of the foregoing paragraph the United States Fuel Administrator will endeavor in accordance therewith to have cars placed at such shipper's mine for the replacement of the quantity of coal diverted and for which settlement has thus been made.

"Settlements, under the terms of this regulation, for diverted coal may be made only as full settlement of all liability in connection with such diversion as between all parties, including the Government."

MEXICO SHOWS MINERAL PRODUCTION TOTALLING BILLIONS

Under the direction of the Secretary of Commerce and Industry a compilation has ben made of the data regarding the production of gold, silver and lead throughout the Republic for the thirty-six years from 1877 to 1913, and will be brought down to date as soon as is possible by the bureaus entrusted with the gathering of statistics concerning all the industries of the nation. During the thirty-six years under consideration there has been a grand total production of the four classes of metals named of $3,000,000,000.

Of gold there has been produced 424,861 kilograms (934,694 pounds), of the value of $556,480,093.42.

Of silver, there has been produced 51,713,424 kilograms (113,769,533 pounds), with a value of $2,059,161,134.72.

Of copper there has been produced 700,000,000 kilograms (1,540,000,000 pounds), with a value of $284,445,821.54.

Of lead there has been produced 1,574,549,204 kilograms (3,464,008,249 pounds), with a value of $84,382,704.98.

The lowest production of gold was in 1885, the total being only 974 kilograms (2,143 pounds), with a value of $1,298,988.75. The gold production was the largest in 1911-12, when it reached 36,415 kilograms (80,113 pounds), with a value of some $50,000,000.

In 1877 silver production only reached 607,036 kilograms (1,335,279 pounds), with a value of about $25,000,000. In 1911-12 the production reached 2,500,000 kilograms (5,500,000 pounds).

In 1911-12 copper reached the total of nearly 60,000,000 kilograms (132,000,000 pounds), while in 1897-98 the production was only 11,298907 kilograms (24,857,795 pounds).

In 1896-97 the production of lead had reached 55,000,000 kilograms (121,000,000 pounds), while in 1909-10 it reached 125,299,318 kilograms (275,658,499 pounds).

Taking the average of the thirty-six years for which statistics are given, and there should be added for the four years, 1914-15-16-17, at least, $333,333,333, although the total will probably bring the production from 1877 to and including 1917 up to at least $3,500,000,000.

(Note—The values as given are in Mexican gold, the equivalent in American gold being one-half, or a grand total for the forty years of at least $1,750,000,000.)

GARFIELD DEFENDS HIS CLOSING DOWN ORDERS

Explains Unparalleled Situation Which Caused Him to Take Action—Says Ships Had to be Bunkered.

United States Fuel Administrator Garfield on February 17 addressed the Alumni of Williams College in New York City. Following is an abstract of his speech:

"It is for the President to speak of things international but we may apply his principle to the things at home and near at hand. The underlying conception of the President is expressed in no single phrase, unless it be making the world safe for democracy, but throughout his address there runs the idea of freedom, a new freedom uncontaminated by the old foundations of feudalism and imperialism, a freedom which shall guarantee to the individual man as well as to the nation, be it great or small the right of self-realization, the right of determining one's own destiny and of responsibility before the world for acts performed in achieving this end. Under this freedom a man or a nation may deliberately choose a narrow, self-seeking career. The man or the nation may choose to disregard the rights of others and the common welfare of the world, but the man or nation so choosing will stand condemned in the eyes of those who comprehend the deep significance of the purpose for which our Williams men and millions of others here and elsewhere are devoting their lives. The nation that seeks primarily its own advancement, even though it proclaim a purpose to confer benefits upon the rest of the world, is building on the fallacies of feudalism. It adopts the high and mighty role of benefactor to an inferior and subservient world. The essence of the new spirit may be expressed thus: There are governors, but no governing class. There are great and small nations, but no dominating nation. The least republic of today must be permitted to march unhindered by the selfish ambitions of the most powerful.

"The significant list published by the Williams Club tells us that 20 per cent of our living alumni and nearly one-half of all the undergraduates as of April, 1917, including 90 per cent of the then Senior class, are in the service of their country. The grand total approximates 900. All but 132 of these have graduated from Williams College since I became your president. Therefore I am warranted in some degree in interpreting the motives which have led so large a proportion to respond to the President's call, I dare to say that deep-set in the hearts of these young men, vaguely comprehended at first, clearly felt as the issues of the war have been revealed, is a desire to aid the President in realizing his high ideal, a willingness to suffer even unto death that freedom may be achieved for mankind, but that nothing selfish can command their willing sacrifice. Our graduates are taking a great post-graduate course in an army dedicated to the service of mankind. They are getting at the truth of two great underlying principles of human action, democracy and autocracy. They began the study in their undergraduate days. There the principle of the common right, of community welfare, of justice and opportunity to the weakest as well as to the strongest, was held constantly before them, but now they see with clear eyes that democracy means the cooperation of willing workers for the benefit of all, and that autocracy, like feudalism and imperialism, means the work of unwilling time-servers for the benefit of an over-lord be he one or many. Having learned the lesson, they will not cease to apply its principles when this war is over. There will be a war after the war, but it will be along lines wholly different from those had in mind by the framers of that unfriendly statement. After the war is finished, when peace shall have come, the conflict that will engage our young men now under arms will be the conflict against the spirit of autocracy in our political, economic, and social life.

"Most of us are unconscious autocrats. In the past few months I have seen many men striving to serve both themselves and the country, a political God-and-mammon service impossible of fruitful results. These really believe that the country would be better off if they were left in undisturbed control. They conceive themselves to be better equipped than others to confer benefits upon those who labor for them in the mines as well as for the consumer in the homes. They are less concerned about justice and fair dealing than they are about efficiency and large profit. Once upon a time a blacksmith placed over his shop this sign: 'Horses shod by a horseshoer.' Here, certainly was a sign worth pondering. A man who knows what he is about is worth cultivating. One summer in the Big Horn Mountains, we had a cook who did not know what he was about. He was a plumber from St. Louis. That, too, is worth pondering. But one may pay too much to the horseshoer and too little to the cook. If one is to set up for a horseshoer, by all means let him know how to shoe horses, but let him not over-charge. In other words, we can pay too much for efficiency. This too, our young men will learn in the post graduate course they are now taking. Efficiency by all means but, if the choice be between efficiency and the democratic spirit of cooperation among willing workers, let us have cooperation and willing workers. My experience with the coal problem demonstrates that neither capital nor labor has a monopoly of virtue. If capital has in some instances endeavored to profit over-much in the present emergency, labor has also been at fault, for there have been those, some of them leaders, who have apparently been unable or unwilling to put aside selfish interests and to labor only as the great majority have done for the common good. But these are the exceptions. The great majority of the operators and mine workers with whom I have come in contact have seen the vision, they deserve praise for their attitude in the face of the present crisis. They have been ready to sacrifice all, if need be, in the spirit of true cooperation. I cite the exceptions merely to indicate something of the nature of the problem with which these young men must deal in the coming days when the sword shall have been sheathed and when the great work of rehabilitation is undertaken. They have responded nobly to the Nation's call to arms, informed by their experience and inspired by the vision of a world made free. They will assuredly enlist in the great enterprise of peace which shall be the establishment of the spirit of democracy in our own midst. They will array themselves on the side of those who demand equal justice and fair opportunity, and against those who, by whatever means, would secure themselves in power against the common welfare. I do not fear the result because our young men have risen to noble heights. They too, have seen the vision and they will not allow the hope of America to fail.

"The course pursued by the Fuel Administration, though dealing with so prosaic a subject as coal, may be fairly cited as a practical illustration of the principle of which I am speaking. In the week immediately preceding the appointment of the United States Fuel Administrator, the production of bituminous coal had touched the lowest point of the year. From that time until the beginning of December, it rose with slight recessions, the total production for the period exceeding considerably the production for the corresponding weeks of the previous year. How was this accomplished? Unquestionably by securing the cooperation of both the operators and mine workers. One hundred years ago, the coal operator was an autocrat and a villainous autocrat. Mine workers were little better than slaves. In these days they were driven to their tasks. Even in these days so sharp a line has been drawn between labor and capital at the mines that it is hardly surprising to find lack of confidence and suspicion on both sides. It was this more than anything else, accompanied by resultant strikes and lockouts, that forced production of bituminous coal to its lowest point by August 18. There were two ways to proceed. Government, under plea of war necessity, might have used force. I do not deny that in times like these force must be used in last resort to carry out the programmes of government. But there was a better way in this instance and the Fuel Administration relied upon it. Operators and mine workers were brought together. The ideal set up by the President was recalled to their minds. Our dependence upon coal for the prosecution of the war was explained. It was firmly insisted that in the present crisis there should be neither union nor non-union; that in the period of the war all controversy between operators and mine workers must cease. The appeal was heeded and production steadily rose until winter set in, in spite of the fact that, as some thought, government had laid a blighting hand on legitimate profits. It was a practical illustration of the potency of the new idea of freedom, a demonstration of the efficiency of democracy, and consciousness of a common purpose.

"A still more vivid illustration of the working of the new idea is found in the spirit in which the American people met the economic crisis from which we are just emerging.

"Beginning with December 8, winter laid its grip upon the land and, by the middle of January, had virtually paralyzed our transportation system, but winter was not entirely responsible, perhaps not even chiefly responsible. Week by week during the latter part of the year, the records showed a menacing increase in production of war material. By our very strength as a great manufacturing nation we were fast breaking down the transportation system on land and preventing its development at sea. We had orders for more material than we could hope to carry away. The condition will be best understood when we reflect upon the fact that our foreign commerce increased since 1913 from two billions to nine billions of dollars. The commodities represented by this enormous increase had to be carried on the railroads and then on the ships. Five thousand additional locomotives annually would hardly have met the normal requirements. But during each of the past two years we had actually placed upon our railroads little more than one-half the required number, while in 1915 only 1,251 were received. The rest we sent to France and to Russia. Is it any wonder that loaded cars stood on the tracks for weeks and even months. From week to week the congestion increased. Nearly one-half of the thousands of cars thus clogging railroads were laden with coal. This coal failed to reach its destination and empty cars failed to return to the mines.

"One must keep constantly in mind the fact that the production of coal is a transportation proposition. The immediate effect of this railroad congestion was to deprive people of coal necessary to prevent them from freezing and to keep from the ships carrying supplies to our base abroad the coal necessary for their bunkers. It needs no argument to demonstrate the necessity of keeping people from freezing and of furnishing coal for ships if the war is to be successfully prosecuted. Week by week the number of vessels waiting for bunker coal in our harbors was increasing until, by the middle of January, the total was appallingly large, especially so when one reflects upon the necessity of an immediate and constant contact between armies in the field and the base of supplies. As a result of the closing order, 480 ships carrying over two milloin tons of food, fuel, and munitions and other war supplies were bunkered and sent from our ports. This is the record from January 17 to 29 inclusive;

forty of those vessels carrying food, 71 carrying coal, oil and gasoline; 369 were laden with munitions and other war supplies. Within a week after the order of January 17 went into effect, all ships ready to sail were bunkered. A normal number only remained at anchor and the flow of supplies necessary to our armies had been reestablished. Important as these facts are in themselves, they are cited merely to bring vividly before you the nature of the economic crisis which was upon us by the middle of January. That you may have the whole picture let me approch the question from another angle. Almost without exception the manufacture of war material was at its highest point about the 1st of December. To cite a few only of the most important articles, the shipments of steel plates essential to the building of our ships fell off nearly 50 per cent during the period from the beginning of December to the middle of January. Without steel plates we cannot build ships. The loss in shipment of merchant bars is still greater. The plotted curves of weekly shipments of all steel products looks like the picture of Niagara, the first of December marking the beginning of the drop and the middle of January the bottom. Even projectile steel dropped 45 per cent during this period. Had this decline been permitted to continue, our most essential war industries would inevitably have been closed down, but not in an orderly fashion. Cooperation demands the share of losses as well as gains. It is noteworthy that the upward trend was resumed for the week ending January 26.

"But figures and diagrams are not essential to my thought. It was only necessary to perceive the destructive force of abnormal production to know that it was vital to the successful prosecution of the war to bunker our ships, to provide coal for domestic consumers, and, so far as the manufacture of war material was concerned, to "stop, look, and listen." The thought I would bring home to you is this. The Fuel Administration, believing in the democratic ideal, asked not that some but that all participate in the sacrifice necessary to save us from our own prosperity and that the American spirit arose and asserted itself. There was no crushing of the weak in a great scramble, but all stopped except the few appointed to absolutely necessary work. The reaction of the American people in the face of the greatest crisis which this generation has been called upon to face proved themselves true inheritors of the American spirit and practical advocates of the principles of democracy. They have demonstrated that free action and willing cooperation are more effective than autocratic compulsion. They imposed restraints upon themselves which the entire army of the United States could not have forced them to observe. This is the spirit which animated our founder, Ephriam Williams, soldier. It is the spirit which dwells in our college among the hills and is transmitted to her sons. It is the American spirit, the spirit of effective cooperation."

WILL ACT ON ALL PRICE COMPLAINTS BEFORE APRIL 1

The regulation of coal prices by the Fuel Administration is the first attempt ever made, at least on a large scale, by the United States Government to fix and establish prices for any of the great industries. It is very important to both the public and the coal industry, Dr. Garfield points out, that the prices so fixed should be based on accurate information as to the conditions prevailing in different fields, and that, when once this information has been received, the right principles should be employed in making use of this information.

The Fuel Administration believes that it has devised a speedy and accurate method for using the cost information which it has in hand, and that it has worked out the fundamental principles which should guide it in considering applications for modifications of coal prices.

It is the purpose of the Fuel Administration to announce decisions on all applications for price revisions now before it prior to April 1, 1918, and, prior to that time, to make such changes in the classification as seem to be necessary, in order to relieve uncertainty on this score, as far as possible, before the beginning of the new coal year.

By this statement, the Fuel Administration does not wish to be understood as stating that the examination of the prices now being made will complete its price work. On the contrary, the Administration will continue to collect and study facts relating to the cost of production of coal and the prices at which it is sold. It will make such further readjustments, from time to time, as are necessary to keep the prices on a scale fair to the public, fair to the coal industry, and sufficiently high to encourage production. It hopes, also, to take measures in the very near future to encourage and insist upon the use of less wasteful methods of mining, the sale of clean coal, and the more definite recognition of the different qualities of coal in the government prices.

Brydon's Territory Increased

Important additions have been made to the territory in which John C. Brydon will work as district representative of the United States Fuel Administration. Originally appointed to serve as representative of all individual shippers and mines in Somerset County, Pa., the order for his appointment was today amended to include in his territory the coal fields in Maryland and in Mineral, Grant and Tucker counties, West Virginia. Mr. Brydon's headquarters will be at Cumberland, Md.

OPERATORS RECOGNIZING GOOD COMING FROM WORK CONDUCTED BY AMERICAN MINING CONGRESS

That the wide field of usefulness of the American Mining Congress in aiding in the general improvement of conditions surrounding the industry is becoming more and more apparent each day, leading operators of the nation have pointed out recently to various directors of the organization.

This opinion has been fostered by much of the recent work of the Congress in relation to a number of big problems affecting the industry such as the excess profits law, leasing bills, silver question and coal field problem.

At the headquarters of the Congress at various meetings were gathered many members of the national House of Representatives and Senate and in the thorough discussions held many problems were satisfactorily explained and the mining men vitally interested in them got a closer view of their national legislators and their interest in the problems affecting their various states.

Hardly a day passes but that several letters praising the work the Congress is accomplishing are received at the Washington headquarters. They come from all sections.

"I take this opportunity of writing you to express my personal good wishes," says B. Britton Gottsberger, general manager of the Miami Copper Company, of Miami, Ariz., "and my appreciation of the results which I feel you are accomplishing for the mining industry in general.

"At a meeting of the Arizona Chapter recently held in Douglas, it was the unanimous opinion of the directors that you were entitled to much more support than you have received in the past and I sincerely hope that the other states throughout the West will take the same action that we have done."

Another letter of much interest comes from the south, J. H. Jones, general superintendent of the Durham Coal & Iron Co., of Chattanooga, Tenn., one of the big representative organizations of the southern coal fields:

"We are pleased to note the various lines of activity," says Mr. Jones, "your office is carrying out—all pertaining to the interests of the industry.

"While we have no suggestions to offer that would better the lines of your endeavor, yet we are in thorough sympathy with your work and are prepared to cooperate in any way possible. Should any matters occur which we desire to present for your consideration or courtesy, we will be pleased to take them up with you promptly."

Speaking of the Raleigh Coal & Coke Co., of Raleigh, W. Va., of which he is the general manager, Ernest Chilson, prominent in the coal councils of West Virginia, says, "We also want to advise you that we believe the American Mining Congress is doing an excellent work for the best interests of the mining business."

From the far western state of Idaho, Mr. Stanley A. Easton, manager of the Bunker Hill & Sullivan Mining & Concentration Company (The Coeur D'Alene), writes as follows: "Following the understanding had with Mr. Burns by Mr. McCarthy, Mr. Day and other operators of the district, I enclose check for $1,500 as a contribution towards the support of the American Mining Congress by the principal operators of this district. I understand that our arrangement contemplates an additional payment of $1,500 within six months hence. With appreciation of the excellent work being conducted by the American Mining Congress under your direction at Washington for the benefit of the industry, I am, with best wishes."

Speaking of one of the special bulletins relating to moves in the mining development of the country, sent to him at Salt Lake City, Mr. L. F. Rains, large coal operator of that city, says, "I beg to acknowledge receipt of your letter of the 12th instant and wish to thank you for the information contained therein. The subjects mentioned are of great interest to me and any information of this character will be appreciated at any time you see fit to forward it. If at any time I can be of any assistance in any way to you, I trust you will not hesitate to call on me."

Mr. C. W. Taylor, vice-president of the W. G. Duncan Coal Co., of Greenville, Ky., and one of the largest operators in the Western Kentucky coal fields, is a staunch supporter of the work of the Congress and in a recent letter calls especial attention to the general effort along all lines for the advancement of every branch of mining.

"I note with interest the activities of the American Mining Congress in matters pertaining to the mining industry generally," says Mr. Taylor, "and heartily agree that much may be accomplished along these lines in the interest of that business. We feel sure that any member of the American Mining Congress will have a friend at court on any question affecting our interests."

Preston County Prices Changed

All bituminous coal mines in Preston County, West Virginia, have been granted the following prices: run of mine, $2.40; prepared sizes, $2.65, slack, or screenings, $2.15.

This order is an amendment of the order issued by the Fuel Administrator January 31, which restricted the prices so fixed to the mines in certain portions of Preston County.

Investigation disclosed the fact that similar freight rates and mining conditions prevail all through Preston County, and the order was amended accordingly.

ELIMINATION OF JOBBERS' MARGIN CAUSES VIGOROUS PROTESTS

Numerous protests from consumers, as well as from jobbers and other coal dealers, are coming in against the proposed revocation of the regulation under which jobbers are now allowed to add a commission, or margin, to the prices of coal at the mines.

These protests are based, the Fuel Administration says, upon the false assumption that the revocation of that regulation will drive the jobber out of business.

The Fuel Administration disclaims any intention to eliminate legitimate jobbers from the coal business. It has not only recognized their importance to the conduct of the trade, but has announced its intention to so fix the prices of coal at the mines as to enable the mine operators to compensate the jobbers for their services. The Fuel Administration insists that bona fide jobbers will not be forced out of business by the proposed change. They will simply be compelled to look to the operator for their compensation as they were accustomed to do before the allowance by the Fuel Administration of the margin.

In view of the protests, however, the Fuel Administration has deemed it advisable to make a more detailed statement than it has done heretofore, of the circumstances that impelled it to take the proposed action.

Prior to the entrance of the United States into the war and for nearly three months thereafter, the jobbeer had always bought from the operator for less than the retailer could buy direct. In other words, the price to the retailer was the same whether he bought direct from the mine, or through the jobber. The so-called jobbers' margin was an innovoation.

After the Fuel Administration had been organized, and the President had fixed the prices of coal, the practice of allowing the jobber to add his commission to those prices was continued.

Under the regulations issued by President Wilson, August 23, 1917, a jobber is defined as "a person (or other agency) who purchases and resells coal to coal dealers or to consumers without physically handling it on, over or through his own vehicle, dock, trestle, or yard."

After several months of operation under the practice of allowing the jobber to add a commission, or margin, to the price of coal at the mine, it developed that this margin was being charged and collected in many ways not contemplated by the Fuel Administration. Agencies, which, while technically jobbers, were not such in fact, or were closely affiliated with the operators for whom they acted, collected the jobbers' margin which thus became a mere increase in the profit of the operator.

One of the methods by which this profit was obtained by the operator, was the practice of "swapping coal." Two operators would agree to act as jobbers for each other in the sale of their output, each collecting the jobber's margins.

Another practice was that of organizing subsidiary companies, the sole function of which was to act as the ostensible jobbers of the producing companies by which they were owned, and to collect the commission allowed by the Fuel Administration.

The effect of these practices was to add from 15 to 30 cents a ton to the cost of coal to the consumer for services that were merely fictitious, and to give operators indulging in such practices a greater profit than that obtained by those of their competitors who employed bona fide jobbers. The business of the bona fide jobber suffered materially by reason of these practices.

Officials of the Fuel Administration felt that a continuance of the commission allowance to jobbers would be tantamount to a tacit consent to the operation of these fictitious jobbers. Effective supervision of the business of individual operators and jobbers, and investigation of their relations could not be undertaken by the Fuel Administration because of the expense and the amount of labor that would have been entailed.

After a thorough investigation of every phase of the situation, which included conferences with representatives of every branch of the coal business, the Fuel Administration decided that the only solution was to recommend to the President the revocation of the regulation allowing the commission or margin to the jobber, and as a substitute the fixing of prices of coal at the mine that will enable the operator to compensate the bona fide jobber for his services.

MONTANA AND TEXAS TO TAKE CARE OF OWN COAL NEEDS

Official reports received by the United States Fuel Administration show that two states of the Union, Texas and Montana, are preparing to take care of their own coal needs in 1918 and subsequently during the war. In the past both states have been large consumers of coal produced in other states; but, realizing the war needs of the nation, the coal users of the two commonwealths will now make every effort to supply their needs through an increased production from their own mines.

"Montana people must put aside their hard coal burners," said State Fuel Administrator W. J. Swindlehurst. "This may work some hardship, but the fuel shortage is teaching the people of Montana that they can get along with coal produced at home, and that they can effect a saving thereby. Montana consumed 5,378,612 tons of coal last year, of which 1,158,612 tons were brought in from the outside. The state must get along this year on its own coal, releasing the extra million tons for war uses."

WEST VIRGINIA GETS BETTER CAR SUPPLY

Mining Congress Aids in Placing Matter Before Proper Officials.

Car service conditions are daily improving in West Virginia and other big coal producing states and representatives of the American Mining Congress who have spent much time on the matter in Washington for the past month are much elated over the reports being received from the affiliated operators of the organization

D. R. Lawson, secretary of the Central West Virginia Coal Operators Association at Fairmont, and Max T. Price, secretary of the Kanawha Coal Shippers' Association at Charleston, who have both been leading in the fight for improved car conditions, are also pleased with the prospects of their associated operators getting a full car supply.

Both Messrs. Lawson and Price have for several months past been sending daily telegrams to the West Virginia delegation in Congress as well as the Fuel Administration leaders, informing them of the car supply in the state, and early in the work established a prima facie case against the railroads, thus eliminating the operators from much abuse on the part of the consuming public.

Conditions have shown such general improvement that Mr. Price several days ago telegraphed Senator Howard Sutherland, of West Virginia, as follows: "Owing to the improved conditions as regards car supply in the Kanawha district our daily reports will be discontinued for the present. They will be renewed later if there is a decided decrease in the supply of coal equipment."

For some days there has also been a big improvement in the Fairmont-Clarksburg field and Secretary Lawson has pointed out there has been a big improvement in the Baltimore & Ohio Railroad car supply to the mines and on several days during the past two weeks a full car allotment was furnished the operators.

Thoroughly familiar with the conditions in the West Virginia fields, by reason of close association there for some weeks previous Wiliam M. Conrad, assistant secretary of the American Mining Congress, spent much time during February in Washington presenting these conditions to Assistant Director General of Railroads Chambers aiding materially in bringing the matter thoroughly to the attention of the National Railroad Administration.

The situation was first brought directly to the attention of Mr. A. H. Smith, regional director of railroads at New York, who was doing all in his power to get the 10,000 or more coal cars congested in the snows of New England to the coal fields.

This congestion, it was pointed out, was caused by the fact that barges could not be used at Hampton, Va., and New York on account of the ice conditions, and it was therefore necessary to send the cars through to New England points.

However, Mr. Smith has been doing splendid work in the metropolis, and the cars have been steadily hurried toward the coal fields until the supply is now again approaching normal conditions.

As soon as this car supply began to arrive the word again went out that the fields of West Virginia and adjoining states were not securing their part of the supply at hand and Mr. Conrad took the matter up with Mr. F. G. Minnick, manager of the Eastern Railroads Car Pool with headquarters at Pittsburgh, and late in February this official, a practical railroad man, promised results in these fields in question within a week of normal weather.

How well he succeeded was noted in reports form the Fairmont-Clarksburg field about ten days later when operators reported that the Baltimore & Ohio Railroad by a "superhuman effort" had sent 1,400 cars into the region on Monday morning. The supply in this field on the following Tuesday and Wednesday was but one-third of this number, but the operators, even with this supply, pointed out that they could survive, with equal distribution, until ideal weather conditions again allow the railroads to move a sufficient car supply to meet the normal demand.

Mining Timber Bill Passes

The Senate recently passed a bill affecting timber for mining purposes.

The bill (S. 26) authorizes the cutting of timber for mining purposes by corporations organized in one State and conducting mining operations in another. It proposes that section 1 of an act entitled "An act authorizing the citizens of Colorado, Nevada, and the Territories to fell and remove timber on the public domain for mining and domestic purposes," approved June 3, 1878 and section 8 of an act entitled "An act to repeal timber-culture laws, and for other purposes," approved March 3, 1891, and the several acts amendatory thereof, be extended so that it shall be lawful for the Secretary of the Interior to grant permits to corporations incorporated under a Federal law of the United States or incorporated under the laws of a State or Territory of the United States, other than the State in which the privilege is requested, said permits to confer the same rights and benefits upon such corporations as are conferred by the aforesaid acts upon corporations incorporated in the State in which the privilege is to be exercised, provided that all such corpotatnions shall first have complied with the laws of that State so as to entitle them to do business therein.

WYOMING CHAPTER ADOPTS IMPORTANT SET OF RESOLUTIONS

The Wyoming Chapter of the American Mining Congress passed the following resolutions at their meeting, held at Casper, January 19:

ADVOCATING DEPARTMENT OF MINES

Whereas the production of metal, both rare and commercial, coal, oil, and gas are of vital importance in the development and stabilizing of commerce in the United States, and

Whereas these wasting industries demand technical, well-trained and highly efficient management under especially established laws and regulations, and

Whereas the mining industry, in all its phases, constitutes the greatest collective industry in the United States because of the fact that it furnishes the sinews of the war and strength of the nation in peace. Be it

Resolved, That it is the sense of the Wyoming Chapter of the American Mining Congress that this great industry should not be subject to the rulings and decisions of a sub-department or any group of sub-departments of the Federal Government, but should be under the executive control of a department of mines whose executive head should be a member of the Cabinet of the President of the United States. Be it further

Resolved, That it is the sense of the Wyoming instructed to forward a copy of these resolutions to His Excellency the President of the United States, and to the Members of the United States Senate and Congress from Wyoming, and to the secretary of the American Mining Congress with the request that this resolution be placed in the hands of all affiliated branches of the American Mining Congress, and that early consideration of this matter be requested at the hands of all such individuals and organizations as are named herein.

REGARDING GOVERNMENT CONTROL

Whereas the unusual conditions caused by the world war and by the cooperation of the United States with its Allies, have created conditions resulting in the establishment of certain departments with control of commercial life and development of the United States, the distribution and sale of certain commodities, and the management and control of certain great industries, and

Whereas it might easily become a fixed policy on the part of the Government of the United States to hereafter and perpetually assert parental control over the industries of the United States. Be it hereby

Resolved, by the Wyoming Chapter of the American Mining Congress, that the Members of the Senate and the Lower House of Congress, representing the State of Wyoming, be petitioned to consider the advisability of introducing legislation in both Houses of Congress looking to a withdrawal of all Federal control of business, either immediately after the close of the war, or within a reasonable period considered necessary for the readjustment of the country when peace is declared.

THE WALSH-PITTMAN BILL

Resolved by the Wyoming Chapter of the American Mining Congress:

That in keeping with the purpose of Senate Bill No. 2812, entitled *"A Bill to encourage and Promote the Mining of Coal, Phosphate, Oil, Gas," etc.*, we urgently request that Sections 16 and 17, of said *Senate Bill*, be included in the House Bill touching the premises, and that there shall be added to the first paragraph of said Section 17 the following words:

> "Within each geological dome or structure to be properly defined by the Secretary of the Interior."

Also *Resolved, That there be added to the second* paragraph of said Section 17, by inserting after the words "If the claim was initiated within less than five years prior to the withdrawal," the following: "or who under a bona fide claim of discovery expended in work or improvements for each claim during each year, when not included in a withdrawal, the amount required by Section 2324, Revised Statutes of the United States, and has never abandoned said claim, if located more than five years prior to a withdrawal." Be it further

Resolved, That the elimination of Sections 16 and 17, as above mentioned, from the Senate Bill, as we are advised is proposed to be done in the House, would annihilate and destroy the investment of millions of dollars in property rights in the oil industry in Wyoming, Colorado, and other Western States and in mid-Continent field, and throw out of employment a vast army of workers now bending every energy to increase the production of oil, so necessary to the successful prosecution of the war, in which every patriotic citizen is vitally interested, and would thus defeat the purpose of the bill. Be it further

Resolved, That the general leasing provisions of the Walsh bill should be modified by placing a more liberal limitation upon the number of leases which may be held in a single interest, such as one lease within one dome or structure, and by amending the stockholders provision in Section 22 to permit a stock interest in several leases, that the successful prospector be granted a right to lease the entire area within his permit, and that Congress be requested to enact the Walsh bill, or one of substantially the same tenor, with the amendments here proposed.

THE BUREAU OF ECONOMICS

Whereas at the present time neither the general public nor intending investors can secure collective facts and history relating to the oil industry of the United States or any State district, or field, without considerable expense, and

Whereas much of the misunderstanding on the part of the general public, and the Congress of the United States in particular, relative to the oil industry as caused by this lack of information. Be it

Resolved by the Wyoming Chapter of the American Mining Congress, that the Congress of the United States be requested to establish a bureau of oil economics, either as a Federal commission with a permanent organization or a permanent sub-department of the Department of the Interior, that necessary appropriations for the expenses of the organization, field work, and management of this proposed Bureau of Oil Economics accompany the passage of the proposed legislation.

The following resolutions were unanimously adopted at the meeting of western mine operators representing Idaho, Montana, Nevada, Utah, Wyoming, and Colorado, held in Denver, January 24:

READJUSTMENT OF SILVER PRICES

Whereas we are reliably informed that the Government, for the purpose of settlement of adverse trade balances, for the assistance of our Allies, and for other urgent Government needs, has in contemplation the introduction of a bill providing for the withdrawal of a considerable part of the reserve of silver now standing behind United States Silver Certificates in circulation, and the temporary withdrawal of the said certificates, under a plan whereby the Government proposes purchasing silver at the fixed price of one dollar per ounce for its immediate needs and for the replacement of silver so withdrawn from the Treasury, until the silver withdrawn, as hereinbefore stated, shall have been completely replaced, and

Whereas, it is the desire of the silver miners of the West to cooperate with the Government in any plan which, at this time, may be found necessary to the successful conduct of the war, having in mind, however, that the real interests of the Government will not be served unless the prices fixed for the products of its mines be sufficiently high to maintain production to that point where the present and future needs of the nation and its Allies will be properly cared for. Therefore be it

Resolved, That this conference of the Colorado Metal Mining Association and Colorado Chapter of the American Mining Congress, together with delegates from the mining organizations of Utah, Idaho, Montana, Washington, Nevada, and Wyoming, held in Denver on the 22d, 23d, and 24th days of January, 1918, does hereby endorse the proposed plan of the Government hereinbefore stated, and pledges its cooperation in securing such legislation as may be necessary to make the said plan effective. And further

Resolved, That a copy of this resolution be forwarded to Mr. J. F. Callbreath, secretary of the American Mining Congress, Washington, D. C., with instructions to bring the same to the attention of those who may be instrumental in its accomplishment.

REGARDING FEDERAL COOPERATION IN MINING

Whereas there has been advocated by the War Minerals Committee legislation looking to administrative control of all mineral production, and

Whereas this conference, while declaring itself as unreservedly, absolutely, and whole-heartedly behind the Administration in all efforts designed to bring the war to a successful conclusion, believes that the production of the copper mines is adequate, of the lead mines more than adequate, and of the zinc mines far in excess of current demands, and that there is no reason to anticipate any marked changes in these conditions for several years to come, and that there exists, by reason of these facts, neither occasion nor justification for Government control or operation of these mines, and

Whereas, on the other hand, the supply of certain so-called rare metals and minerals, namely: molybdenum, tungsten, manganese, chromium, pyrites, potash, and nitrates, is entirely inadequate for this nation's need now and hereafter. Therefore be it

Resolved, 1. That we favor the encouragement by subsidy, direct and indirect, and in every other way, of the production of such rare metals.

2. That we favor the stimulation by every possible means of the production of gold and silver.

3. That we do not favor Government control or operation of mines producing gold, silver, copper, lead, zinc, or other metal or mineral, unless a shortage should develop therein. And be it further

Resolved, That copies of this resolution be sent to the secretary of the American Mining Congress, and to the various State organizations represented for transmission to their respective Congressional delegations, and to the members of the various House and Senate committees concerned, to the Secretary of the Interior, and to the Director of the Bureau of Mines.

WALSH-PITTMAN BILL ENDORSED

Whereas the welfare of the mining industry requires closer cooperation in an ever increasing degree in order to protect the best interests of the industry and of the nation itself.

Resolved, by the general conference of the western delegates to the American Mining Congress in convention assembled, in Denver, Colo., January 23, 1918, that we most heartily endorse and support the resolution hereto attached, adopted by the Oil Section of the Colorado Chapter of the American Mining Congress, on January 11, 1918, favoring the passage in the House of Representatives of the United States of Senate Bill No. 2812 (commonly known as the Walsh-Pittman Bill), which has passed the Senate and is now pending before the House of Representatives. Further

Resolved, That a copy of this resolution be forwarded to all the members of the Public Lands Committee of the House of Representatives.

Resolved by the Oil Section of the Colorado Chapter of the American Mining Congress, That Senate Bill No. 2812, known as the Walsh-Pittman Bill, will greatly curtail the development of the oil fields in the West and the production of oil, and is not as liberal as the pioneers and prospectors of the West had hoped to obtain from Congress. Nevertheless, said bill, as passed by the Senate, is acceptable to this organization, provided there be added to the first paragraph of Section 17, in order not to confine the operations of active developing companies to one particular structure, the following words:

"Within each geological structure to be properly defined by the Secretary of the Interior." Be it further

Resolved, That the elimination of Sections 16 and 17 from the Senate Bill, as we are advised is proposed to be done in the House, would annihilate and destroy the investments of thousands of dollars in the oil industry in Wyoming, Colorado, and other Western States and in the mid-Continent Field, and throw out of employment a vast army of workers now bending every effort to increase the production of oil so necessary to the successful prosecution of the war in which every patriotic citizen is vitally interested.

FAVORING DEPARTMENT OF MINES

Whereas the production of metal, both rare and commercial, coal, oil, and gas are of vital importance in the development and stabilizing of commerce in the United States, and

Whereas these wasting industries demand technical, well-trained and highly-efficient management under especially established laws and regulations, and

Whereas the mining industry, in all its phases, constitutes the greatest collective industry in the United States because of the fact that it furnishes the sinews of the war and the strength of the nation in peace. Therefore be it

Resolved, That it is the sense of the American Mining Congress that this great industry should not be subject to the rulings and decisions of a sub-department or any group of sub-departments of the Federal Government, but should be under the executive control of a Department of Mines, whose executive head should be a member of the Cabinet of the President of the United States.

BUREAU OF ECONOMICS

Whereas the Government reports concerning mines and mining are often insufficient to meet the immediate needs of persons or corporations desiring data regarding certain phases of mining operations, costs of production, etc. Be it

Resolved, by the conference, that the American Mining Congress be requested to establish a Bureau of Economics for the purpose of assembling from Federal, State, and private sources, statistics, costs, transportation, history, etc., of every phase of mining, including oil and gas, and to classify and promulgate such information for the assistance of the Congress of the United States intending investors and publishers.

ENLARGED WORK OF AMERICAN MINING CONGRESS

Your committee appointed to consider and report to the conference a plan under which the enlarged work of the American Mining Congress can be financed, respectfully report the following recommendation:

That a contribution of $3,000 be apportioned to each of the following States: Arizona, Nevada, Idaho, Montana, Colorado, Utah, California, Wyoming, and Oklahoma, this sum to be raised by each State under whatever plan may seem most advisable and practicable; that 50 per cent of this money be paid into the treasury of a finance committee within the next thirty days, and the remainder within six months from this date, and that the work of organizing and completing this finance campaign be placed in the hands of a special finance committee composed of Mr. Bukley Wells, of Colorado; Hon. Emmett D. Boyle, of Nevada; and Mr. James M. McCarthy, of Idaho.

Oil Meeting Postponed

The conference of oil well supply men and officials of the Oil Division of the United States Fuel Administration, originally called for Monday, March 4, has been postponed until Monday, March 11.

URGES SUPPORT FOR THE MINING CONGRESS

Mining and Scientific Press Comments on Work Being Done in Behalf of the Mining Industry.

Recognition comes slowly to a great work. It is difficult for the individual to appreciate a general work no matter how greatly he may be benefited thereby. The American Mining Congress has been working steadily and conscientiously for the best interests of the mining industry, and it is with a great deal of real pride and appreciation that we print the following editorial recently published in the Mining and Scientific Press of San Francisco:

"A distinguished mining engineer, recently returned from Washington, has expressed to us his belated appreciation of the good work that is being done by the American Mining Congress, as represented by Mr. J. F. Callbreath, the secretary of that organization. Like many others, our friend had been under the impression, which we shared at one time, that the Mining Congress was kept going by a group of second-rate promoters and men of that ilk, although, from time to time, sundry professional men of high character had associated themselves temporarily with the organization. The point of this story is that the mining engineer, whom we have quoted, has confessed to us his discovery that Mr. Callbreath and Mr. Walter Douglas, the distinguished president of the Mining Congress, are doing a distinct public service at Washington, and are performing a function necessary to the protection of the national mining industry. They need support, in the form of more extensive membership, to be secured by the formation of local State chapters. To put his opinion into effect our informant himself became a member and is now taking steps to further the second suggestion. We share his viewpoint. The American Mining Congress has had its vicissitudes, it was not always an agency that the mining profession could support with real enthusiasm. For ourselves, we began to take it seriously when Mr. J. H. Richards was president for several years, and was supported by such men as the late Ernest R. Buckley, trying not in vain to make it a useful factor. To the Mining Congress we owe the creation of the U. S. Bureau of Mines, the Safety First propaganda, and the efforts to amend the mining law. We need an organization that will include all the diverse elements engaged in mining, and we need some sort of annual convention in which these elements can be articulate. We need also somebody authorized to watch legislation in Congress in behalf of the mining industry, somebody or some committee that is out of politics and free to act independently in the interests of mining. Mr. Callbreath should be given the good will and support of the mining fraternity, and to that end it will be well if the California Metal Producers Association, having headquarters here in San Francisco, and the Chamber of Mines and Oil, at Los Angeles, would join in forming a California Chapter of the American Mining Congress."

JANUARY COAL PRODUCTION FALLS UNDER THAT OF SAME MONTH IN 1917

The January output of soft coal failed to make good the slump recorded in December. The total production of bituminous coal (including lignite and coal made into coke) is estimated as 42,727,000 net tons, only 57,000 tons more than the December production. Indeed, because January contained 26 working days as compared with 25 in December the daily rate of production in January was lower than in December. Preliminary estimates place the average daily output during January at 1,643,000 tons as compared with 1,686,000 tons in December. These are the figures of the United States Geological Survey.

The rate of bituminous production during the first month of 1917 was lower than in any month since September, 1916. The cause underlying this alarming depression was an unprecedented congestion of the transportation system of the country induced in part by unusually severe weather.

Bunker Coal

No coal in the future is to be billed at the special bunker price until it has been actually placed in foreign bound vessels. The special price allows an additional $1.35 per ton of 2,000 pounds on export and bunker coal.

The Fuel Administration interprets "coal for foreign purposes" to mean coal put into the bunkers of any vessel bound for a foreign port. Coal for the army, navy, and government transports, and coal shipped to any of the dependencies or possessions of the United States for the account of any government department, does not take the special bunker price.

Assistant Representatives Named

The United States Fuel Administration has announced the appointment of Assistant District Representatives to work under the supervision of Mr. H. N. Taylor. Mr. Taylor is District Representative for the coal fields of Arkansas, Iowa, Kansas, Missouri, Oklahoma and Texas, to serve as representative of all individual shippers and mines included in that area.

The Assistant District Representatives appointed to assist Mr. Taylor are: D. F. Cushing, Des Moines, Iowa; Charles Markham, Kansas City, Mo.; J. G. Puterbaugh, McAlester, Okla.; J. W. Hinton, Ada, Okla., and W. H. John, Bridgeport, Texas.

EMBARGO ON MINING SUPPLIES IS RAISED

Much Satisfaction Expressed by Operators and Supply Houses—Mining Congress a Factor in Securing Ruling.

Much satisfaction was expressed by mining operators and mining supply people when during the latter part of February the Director General of Railroads announced that mining supplies had been exempted from the embargo and the railroads would accept freight of this character.

Ten days previous to this action the American Mining Congress had been informed through Secretary Callbreath that this character of supplies would shortly be placed on the exemption list and a bulletin to this effect was sent at once to the various affiliated mining operators and supply houses of the contemplated action.

The information that the exemption list would include mining supplies came after several weeks of vigorous objection on the part of William M. Conrad, assistant secretary of the American Mining Congress, who pointed out to the railway people that if they expected the coal mines of the country to get out a supply of coal, then in all fairness they should be allowed a continuous line of supplies so that operations would not be hindered in the least.

It was pointed out that coal mining supply houses in various parts of the country had their shipping warehouses loaded with goods already ordered by coal mine operators who were depending on the receipt of these supplies if they were to keep up their production.

"What are we to do?" operators asked as they figured on increasing their production to the utmost, and at the same time Uncle Sam's railway officials were holding out and announcing they could not haul the necessary supplies.

However, the officials soon saw that they must get the needed supplies to the mines if the production was to be kept up and in instances increased, and the exemption order came.

Three days before the order was printed the American Mining Congress bulletined a copy to every affiliated operator and mining supply house that it was in effect and that railway agents everywhere had been ordered to accept mining supplies as freight.

From various parts of the country came congratulatory letters as soon as this bulletin was received and many inquiries came also for details. These were replied to almost immediately and special information sought given with the sanction of the national railway officials.

In some parts of the country railway agents have not interpreted the exemption order as they should have and in instances shippers have had their freight refused by the carriers, but this delay has been only temporary.

As soon as these matters were brought to the attention of the Mining Congress the instances were brought at once to the attention of the Car Service Commission officials of the National Railway Administration, and orders were at once issued to the various railway agents directing them to accept the freight in question at once and to do all in their power to expedite its movement.

On account of the delay in the acceptance of these necessary supplies in instances much loss has been suffered by mining supply manufacturers.

Promptly with the exemption order came the question from a big steel rolling mill which manufactures light steel rails used in mines exclusively if it was to be allowed its raw material from various shippers. Agents had refused the shipments and in instances as many as ten carloads were waiting to be taken by the roads, while the mill had shut down and many workmen had been forced out of employment.

These matters were taken up at once and the national railway officials issued special orders that this raw material should be moved at once to its destination.

Thus in another instance the Mining Congress was able to be of distinct service to one of its active members, a big manufacturer who has been affiliated with it for some time past.

COMPLIANCE WITH STATUTE

To entitle the locator of a mining claim to a patent he is required to locate the tract claimed, not exceeding 1,500 feet in length and 300 feet on each side of the vein, to file in the proper land office an application for a patent, together with a plat and field notes of the claim made by or under the direction of the Surveyor General, showing the boundaries of the claim distinctly marked on the ground so they can be readily traced, to post a copy of such a plat with a notice of the application for patent on the claim, to file an affidavit of two persons that the notice was duly published sixty days, to file with the register of the Land Department a certificate of the Surveyor General that $500 worth of labor had been expended in improvements on the claim and that the plat filed is correct, and to file his own affidavit that the plat and notice were posted on the claim. The question whether or not the applicant has sufficiently shown compliance with these and other conditions specified by the acts of Congress and is entitled to a patent is the ultimate question which the Land Department is empowered and required to decide before the issuance of a patent for a mining claim.

Conkling Mining Co. *vs.* Silver King Coalition Mines Co., 230 Fed., 553, p. 558.

BUREAU OF MINES NEEDS MONEY FOR ITS WAR WORK

Appropriations are asked by the Bureau of Mines as follows:

Total appropriation	$250,000
Manganese	80,000
Pyrites and sulphur	35,000
Sulphuric acid	25,000
Graphite	20,000
Tin	15,000
Mercury	5,000
Potash	10,000
Tungsten	7,000
Antimony	10,000
Chromite	15,000
Megnesite	5,000
Mica	3,000
General expenses	20,000

Manganese.—Experiment and demonstration to extend the use of spiegeleisen and manganiferous pig iron to replace ferro, $40,000; production of silico and ferro alloys in the electric furnace, $5,000; treatment of rhodocrocite, $5,000; Analysis of manganese specifications for steel, $5,000; Substitutes for manganese in steel manufacture, $5,000; field parties to examine and sample ore deposits, $10,000; concentration of low-grade ores, $10,000.

Pyrites and Sulphur.—District engineers to supervise and stimulate pyrite production, $15,000; preparation and use of pyrite from coal mines, $8,000; utilization of pyrite cinder, including the recovery of copper, $3,000; use of pyrrhotite, $3,000; the treatment of sulphur, including flotation as applied to surface deposits in the West, $3,000; reduction of sulphur used for wood pulp (sulphate wood pulp), $3,000.

Sulphuric Acid.—Increasing the efficiency of chamber plants, $5,000; investigation of the possible reduction in the consumption of acid, $5,000; recovery of sulphuric acid in the manufacture of high explosives, oil refining, pickling iron and steel, and utilization of "niter" cake from explosives plants, $5,000; use of enriched air or oxygen in manufacture of acid and use of liquid SO_2, $5,000; concentration of chamber acid, $5,000.

Graphite.—Improvement in milling practice, including flotation and electrostatic separation of mica and improvement of health conditions, $8,000; domestic graphite for crucibles compared with foreign materials—use of law-grade flake—use of suitable domestic clays—standardization of domestic product, $5,000; utilization of amorphous and low-grade graphite, including possible manufacture into artificial flake, $5,000; substitution of electric furnace steel for crucible steel, thereby eliminating crucibles, $2 000.

Tin.—Recovery of waste tin, $15,000.

Mercury.—Concentration of low-grade ores—improvement furnace practice, $2,000; uses and substitutes for mercury, particularly for fulminate, $3,000.

Potash.—Potash survey—recovery from cement kilns and blast furnaces—alunite, leucite, feldspar, brines, and mine tailings, $10,000.

Tungsten.—Improved methods and reduction in losses in milling of ores and manufacture of ferro, $5,000; properties and use of molybdenum as substituted for tungsten, $5,000.

Antimony.—Substitution for antimony for hardening lead (calcium, barium, and lead), $4,000; domestic versus Chinese antimony when used as antimony sulphide for primers and small-arm munition, $3,000.

Chromite.—Field examinations, $5,000; concentration of low-grade ores for ferro-chrome and refactories, and use of low-grade ore for salts, $5,000; substitutes for chromite for refactories (magnesite) and for ferro, $5,000.

Magnesite.—Addition of iron to domestic product for refractories—preparation, experience in use, permanent market, 5,000.

Mica.—Standardization of mine product—properties of domestic mica as compared to imported product, $3,000.

War minerals occur in the States as follows:

Alabama, graphite, pyrite; Arizona, manganese, tungsten, molybdenum; Arkansas, manganese; California, pyrite, chromite, mercury, magnesite, tungsten, manganese, molybdenum, potash, strontium; Colorado, tungsten, manganese, pyrite, molybdenum, sulphur; Georgia, pyrite manganese; Illinois, coal brasses; Indiana, coal brasses; Louisiana, sulphur; Maine, pyrite; Maryland, chromite; Massachusetts, pyrite; Minnesota, manganese; Missouri, pyrite; Montana, manganese, arsenic; Nebraska, potash; Nevada, mercury, antimony, manganese, sulphur, tungsten; New Jersey, potash; New Mexico, manganese; New York, pyrite, graphite; North Carolina, tin mica; Ohio, coal, brasses; Oklahoma, manganese; Oregon, chromite; Pennsylvania, chromite, pyrite, graphite; South Carolina, pyrite; Tennessee, manganese; Texas, graphite, mercury, sulphur, strontium; Utah, sulphur, manganese, arsenic; Virginia, tin, pyrite, manganese; Washington, magnesite; Wisconsin, pyrite; Wyoming, chromite, sulphur.

Emergency Coal Orders

Under instructions issued by Dr. Garfield, State Fuel Administrators will hereafter determine not only to whom emergency coal shall be supplied but also from whom the coal thus diverted shall be withheld.

Will Prevent Mixing Coal

The Fuel Administration has announced a ruling intended to prevent producers from charging more for a mixture of cannel and bituminous coal than the price fixed by President Wilson for bituminous coal at the mine.

SEES LITTLE GOOD IN FUEL POLICY

Senator Reed Wants Fuel Administration Directed by Men Experienced in the Coal Business.

Nearly one thousand pages of printed matter are contained in the report of the investigation of the sub-committee of the Committee on Manufactures of the United States Senate, of which Senator James A. Reed is chairman. The investigation brought out a great many interesting facts concerning the shortage of coal and the activities of the Fuel Administration, as well as the activities of the Peabody Committee in conjunction with Secretary of the Interior Lane. Senator Reed has just filed with his committee a very comprehensive resume of the result of this investigation. This brief of the testimony shows the production of coal during the year 1917 was approximately fifty million tons greater than during the year 1916; that by reason of the increased demand for coal, there was still an estimated shortage of approximately fifty million tons. The brief points out that the exports for 1917 were but 1,200,000 tons more than the year 1916, and that coal consumed for bunkering purposes during the year 1917 was 1,800,000 less than in 1916. From these figures it is shown that the total amount of coal used for bunkering purposes and for exports in the year 1917 was 596,848 tons less than in 1916. It is pointed out that the U. S. Geological Survey has estimated that the known coal deposits in the United States within three thousand feet of the surface are estimated to be 3,538,554,000,000 tons, capable of supplying, at the present rate of consumption the needs of the country for four thousand years. Senator Reed submits the following questions and comments: The practical questions, however, are:

(*a*) What is the present producing capacity of the mines of the United States?

(*b*) To what extent can this production be increased within the next twelve months?

The mines now opened and being operated cannot be exhausted for many years. The limit upon production therefore, is—

1. Machinery.
2. Man power.

In order to operate the mines and get the coal to the ultimate consumers, two other factors must be considered: (*a*) Transportation; (*b*) Storage at point of consumption. In 1917 the bituminous mines, working at not to exceed 65 per cent capacity produced 544,261,000 tons. According to Dr. Garfield's estimate an increased production of 50,000,000 tons would have fully supplied the demand for that year. If the present production of 65 per cent brought 544,261,000 tons, then an increased activity of 5.97 per cent of the total capacity of the mines, would have produced the 50,000,000 needed to fill the gap between demand and production. In other words, it was only necessary to increase the output of the mines from 65 per cent to 70.97 per cent and all the coal needed would have been supplied. The witnesses substantially agreed with sufficient transportation available, the coal production could have been increased from 65 to 85 per cent. If the capacity of the mines was increased to 85 per cent, there would be produced of bituminous coal 710,722,000 tons or 111,722,000 tons more than at the present rate of consumption we need for all purposes. That the mines are capable of producing an adequate supply is shown by the circumstances that the mines which were in April producing approimately 1,600,000 tons per day, under a stimulus of high prices, had increased their production, up to July 14, to 1,905,000 tons per day, the largest production in the history of the United States before or since. Prior to 1916 the supply of bituminous coal was abundant. Railroads, and many other large consumers, were given contracts ranging as low as $1.05 per ton mine run. In 1916 a shortage developed which caused a stimulation of prices and some alarm. These conditions were accentuated during the early part of 1917. The result was, during that period, a large part of the coal contracts were made at a considerable advance in prices. A general alarm at once spread over the country. Consumers began bidding against each other for a supply of coal. It is estimated that fully 60 per cent of the bituminous coal, or 326,400,000 tons of coal was contracted for at the following range of prices, viz: from $3 to $5.50 per ton.

HISTORY OF GOVERNMENT CONTROL

The United States entered the war on April 6, 1917. It was immediately recognized that there would be a greatly increased demand for coal. Shortly thereafter Mr. Peabody was informally requested to study the coal situation. On April 27 the Council of National Defense formally created a Committee of Coal Production with instructions to in every possible way increase the output of coal ,and cooperate with the Transportation Committee of the Advisory Commission in accelerating the movement of coal to points where most needed. The Committee immediately entered upon the work of settling labor disputes. It also created the Lake and Tidewater pools, thus reducing the number of consignments at tidewater fronts from 1,100 to 47. It cut the average detention of coal cars in half; increased the daily unloading capacity at Newport News from 6,600 tons to 24,100 tons, arranged to supply the navy with 1,700,000 tons at a price to be fixed by the Government. These results were accomplished by mutual agreement with the coal operators, with whom there was working in active cooperation, the United Mine Workers' Asociation. The Committee, after consultation, fixed tentative maximum prices to hold only until the completion of the investigation of cost by the Federal Trade Commission and Mr. Peabody. Speaking generally, the maximum prices thus fixed were $3 for eastern coal, and $2.75 western coal, mine run. This was, again speaking generally, a reduction of $2.50 to $5.50 below the prices coal was then commanding in the open market. Up to this time the agreement was purely voluntary. It was the intention of the Committee fixing these prices, to fix them high enough so that all mines, capable of producing coal in substantial quantities, could operate.

On June 30, 1917, Secretary Baker issued a letter in which he stated that the Coal Production Committee was "Without power or authority to deal with the question of prices; that any attempt by it to fix a maximum price was beyond its legal power." He further declared, as his opinion, "That the price of $3 suggested or agreed upon as a maximum is an exorbitant, unjust and oppressive price." He added, "I am sure that none of my associates in the Council will dissent from the view I have herein expressed, both on the limitation upon the powers of the Council and the Coal Production Committee, and the effect of the action alleged to have been taken." At once the cries swept over the country that the prices of the Lane Committee were exorbitant, and that further great reductions would be made. There immediately resulted a cancellation of orders; some of the operators kept to the Lane prices with disastrous effects upon their business. Other operators sold in the open market, regardless of the Lane agreement. Those who adhered to the Lane prices found their business was ruined. The action of the Lane Committee having been repudiated by Mr. Baker, chairman of the Council of National Defense, prices continued very high and rapidly fluctuated. The increased production which would ordinarily result from the stimulus of high prices was largely neutralized by elements of doubt and uncertainty which were artificially created. At the head of the list was the power of the Government to fix prices of coal, and even under some circumstances to commandeer mines. Unless these prices were fixed, neither the producer nor the consumer could tell the basis upon which contracts would be permitted, and accordingly neither could, with safety, plan for those industrial expansions necessitated by the war. This condition of absolute uncertainty continued from June 30, when the Lane agreement was repudiated, until August 21, when the Federal Trade Commission prices were promulgated. During that interval business men proceeded at their peril. Restriction production, and especially upon expansion, was the inevitable result. The period just referred to covered, in part, those months of the year best adapted for the production and especially for the distribution of coal. Threatened as we were by a shortage of transportation, it was vitally necessary to carry them through the winter months, when increased burdens, coupled with storms and transportation difficulties, would restrict the movement of fuel. Instead of fixing a maximum price high enough to permit production, and, at the same time, to insure the public against extortion, months of valuable time were allowed to slip by. During this period the public was advised not to lay in a supply of coal. On May 15, 1917, the Federal Trade Commission desired

> to hear from persons who knew of instances of extortionate prices being asked for coal, or where dealers were making false announcements of "coal shortage" in order to raise prices and frighten people into submitting to extortion and unwarranted advances. The Commission wants names, dates, and facts, and will vigorously take up and investigate and give wide publicity to those that it finds indulging in these practices. There is absolutely no call for any "panic" or panic prices, and the Trade Commission is frowning upon either operators, wholesalers, or retailers who do anything towards creating an abnormal condition, or who is asking abnormal prices.
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> We want the consumers to cooperate with us in finding out the dealers who are attempting extortion, and we will see that investigation is made and publicity given. There is plenty of coal for everybody, and the idea of a panic is foolish, and there will be plenty of cars to move the coal in, also. Buyers should keep their heads and refuse to buy at any such prices as are being asked in many instances.

In this connection it is interesting to notice that coal dealers who anticipated a real shortage and who stated the fact substantially as they afterward developed, that a coal shortage was likely to result, were severely criticized by members of the Federal Trade Commission if, indeed, they were not blacklisted. On August 21, the Federal Trade Commission fixed the prices of coal. On September 15, Dr. Garfield, in a public statement, advised the people if coal prices were unduly high to buy no more than sufficient fuel for actual present need, adding, that "the Government will see to it that unfair prices are reduced, and that every consumer receives his just share of the supply."

. . . .

On October 5, the Fuel Administration issued another bulletin denying reports of coal shortage, either present or prospective. Those parts of the country which were already alarmed, were assured that while coal was being sent to the northwest in great quantities, they would receive their full share later.

INTERFERENCE WITH THE COURSE OF TRADE

We have heretofore called attention to the following causes tending to interfere with coal production, consumption, prices, viz:

(a) The fixation of prices by the Lane Committee and the subsequent repudiation of the authority of that Committee.

(b) Elapse of nearly sixty days between the repudiation of the prices of the Lane Committee and the promulgation of new prices by the Federal Trade Commission.

(c) The constant assurances given to the public of an abundant supply of coal, together with advice not to purchase at present prices.

It remains to trace certain other acts of interference. Prominent among these is the policy of issuing priority orders. . . .

The record gives plainly the evidence of the utter failure of priority orders. It seems pretty conclusively proven that priorities and preferences introduce confusion and resulted in tieing up thousands of freight cars and creating embargoes in many of the great terminal yards of the country. This evidence has already been quoted. It seems to be borne out by the fact that the first priority order was issued on August 20. At that time the car shortage was only a little over 30,000. Within sixty days it amounted to over 90,000, and before 120 days had elapsed, had reached the stupendous figure of 140,000.

BUNKERING AND FOREIGN COAL

The moment the United States entered the war, the paramount importance of tonnage was recognized. The man on the street understood that tonnage was pitifully short and, therefore, its constant use the more imperative. Under such circumstances no ship should have been kept at the dock a single moment for want of coal. The bunkering of coal was even more important than new ships, for without such coal the ships we possessed could not move. Prior to any governmental interference there was a commercial machinery which had been created through many years of experience, and which devoted its entire energies to the bunkering of ships. Many of the concerns engaged in the bunkering business had been in existence a great number of years and had in their employ practical experts not theorists or dreamers. These men knew where the coal was, how to secure it, and where it would be needed. The Government by various orders, put this machinery out of commission, or completely subordinated it to the Fuel Administration, so that it can be fairly said the Fuel Administration was substituted for business machinery theretofore existing. Senator Reed closes the remarkable statement from which the above excerpts are taken, with the following conclusion:

> **"I submit that no great business can prosper unless the conditions under which it is to be conducted are reasonably stable." Amidst the chaos now existing in the coal business, from the mine to the retail yard, one fact indisputably appears, viz., that uncertainty must at once give place to stability, or we will in the near future be confronted by a coal shortage of the most disastrous character. What coal producer can be expected to expend large sums of money to increase the output of his mine, when he is informed in advance that the prices he will in the future be allowed to charge, are subject to change at any moment by individuals over whom he has no possible control and who may be either informed or uninformed on coal costs or conditions? What coal producer can safely make contracts when he is informed that his contract is at any moment liable to be annulled? Such a contract ceases to have any real force. This cannot be relied upon as a basis for any kind of calculation or business enterprise.**
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> **It seems equally plain that the consumers of coal must be told with reasonable certainty what coal prices and what coal contracts they can rely upon. A denial of this places them in a position of uncertainty, so that they do not know what contracts they dare make, what plans for the future they can safely lay down. Whatever diversion of opinion there may be on other questions, it seems to me in view of the fact that practically all coal contracts will terminate on the 1st of April, there should be an immediate announcement of prices which will be permitted and of contracts which will be allowed, and that a fixed period of time should be stated within which the business world may safely calculate and contract**
>
> **It is plain in that the prices allowed to be charged must be reasonably renumerative. If this is denied, the maximum production cannot be expected. It also seems too clear for dispute that restrictions upon business ought to be reduced to a minimum; that experimentation and guess work concerning a great fundamental business upon which all other business to a large extent depends, ought to cease. Obviously, this great fundamental business ought not to be wrested from experienced hands and taken over by those who, however good their intentions, are utterly lacking in that knowledge essential to its successful conduct.**

A. W. CALLOWAY NEW DIRECTOR OF BITUMINOUS DISTRIBUTION

A. W. Calloway has been made Director of Bituminous Coal Distribution. Mr. Calloway is president of the Davis Coal and Coke Company, of Baltimore, and of the Terminal Railroad and Coal Company, Pittsburgh.

Mr. Calloway was selected because of his familiarity with the necessary movement of coal into the eastern producing districts.

In connection with Mr. Calloway's appointment, J. D. A. Morrow, recently appointed Manager of Distribution, stated that this is a part of the plan of placing the distribution of coal in the hands of practical coal men as far as feasible In the distribution of bituminous coal, Mr. Calloway will have competent coal salesmen and shippers in charge of the various subdivisions of his work In each of the producing regions he will have at his command a District Representative of the United States Fuel Administration who is a coal man familiar with conditions in his particular territory. Nearly all of these representatives have already been appointed, and most of them are now at work.

NEED FOR RESEARCH INCREASED BY WAR

Pressing Metallurgical Problems Stand Between Consumer and Many Domestic Mineral Resources

A plan whereby the immediate crying need for ships, ships and more ships to take food and supplies to our men in France can in a degree be met without waiting upon the construction of new ships, was outlined today by Secretary of the Interior Lane. With a ton of shipping more valuable than perhaps can be calculated in the present emergency, Secretary Lane proposes that American mines be developed to their fullest capacity at once, especially in the production of those minerals essential to war making, and that the ships that have been bringing to these shores 2,000,000 tons of these minerals be released at once for taking food and supplies to France.

American mines, in the opinion of Secretary Lane, can supply all these essential war minerals if they are given the proper opportunity and assistance by the Federal Government.

"At the present time," said Secretary Lane, "every ship that can be spared is badly needed to extend our military operations in France. The minerals, which we can supply and which are imported, come from many distant sources, involving long voyages and delays in loading. These minerals represent an import of about 2,000,000 long tons per year, three-fourths of which can be eliminated in case of extreme necessity. Every additional day spent in the submarine zone is not only dangerous but unnecessary. In addition to the sacrifice of ships, the importation of bulky minerals congests our ports and exhausts our credit in the purchase of supplies abroad.

"The importation of these minerals involves not only the diversion of ship tonnage from military service, but also requires that this country furnish fuel, equipment and supplies to the foreign mines producing these minerals and also the transportation to these countries of other products which they demand in return for their minerals."

"What particular minerals are these?" the Secretary was asked.

"The minerals to which I refer are the most important minerals for the manufacture of munitions. In fact, their importance is far greater than either their tonnage or value would indicate. The two fundamental materials in the production of all modern high-power explosives are nitrate, chiefly as nitric acid, and concentrated sulphuric acid made from pyrite or sulphur. Manganese is the most essential alloy for high-grade steel for munitions and important industrial uses. Flake graphite is used for crucibles required in the production of brass and crucible steel. Tin is required for tin plate for utensils and cans for preserving food and bearing metal. Mercury is used as a fulminate to explode cartridges and shells, and is essential alloy for high-speed tool steel. Anti-high explosives. Potash is chiefly used for fertilizer with smaller amounts for explosives, soap, glass and chemicals. Tungsten is an essential alloy for high-speed tool steel. Antimony is required for hardening lead and bullets. Chromite is used to make an alloy for steel going into armor-plate, armor-piercing projectiles, tool steel and as a refractory lining in open hearth steel furnaces. Magnesite is used as a refractory in metallurgical plants. Mica is indispensable as an insulating material in the manufacture of electrical apparatus.

"American mines can produce all of these minerals, providing they are given the necessary assistance of the Federal Government. I have, therefore, asked Congress to make a special appropriation so that a large force of metallurgists can be set to work immediately on the necessary changes in practice to use lower grade manganese ores. Field parties of engineers and geologists must take samples for quick concentration tests to improve the quality of the domestic materials. Many new mines must be developed at once and if these mines are to survive after war conditions and become permanent industries, they must be able to operate efficiently and take advantage of the most improved methods. With this object in view, technical investigations suggested will inform the new operators of the best practice in their operations and will undertake to secure a technical solution of the difficulties which will make their products as desirable as that which was formerly imported. The development of new deposits, of better methods, and of substitute materials, gives assurance that a large part of this new development may be permanent and thus make us less dependent on foreign supplies for essential minerals.

"The Bureau of Mines has already completed a survey of pyrite mines of the country and of the principal sulphur deposits. It has made a preliminary study of the concentrated acid plants with a view to increasing their output. It has cooperated with the work leading to the establishment of nitrate plants. It has examined the principal manganese districts of the country and undertaken to analyze metallurgical practice as related to the use of lower grade alloys and ores. The principal technical work essential to these problems has been laid out, but has partially been brought to a standstill through lack of funds.

"A group of engineers must be organized to encourage the development of new pyrite mines and to hasten new development as rapidly as possible and to determine the need for priority assistance in the shipment of materials and products. The concentration of chromite ores is an immediate and pressing problem, as two-thirds of our supplies still come from abroad. Improved milling methods and a study of the use of domestic graphite in crucibles would very rapidly increase the domestic production of this material. Under present uncertain conditions, the graphite industry is threatened with serious curtailment rather than expansion. It is absolutely essential that the consumption of such essential products as tungsten and quicksilver be carefully supervised and checked in order to make sure that these materials are properly used and do not fall are properly used and do not fall into alien enemy hands.

"The domestic producer of heretofore imported minerals in undertaking new operations needs information and assistance to hasten his production. The consumer in changing to new materials needs technical assistance in order to prevent the distribution and interruption of his products. Thus, the use of domestic minerals involves certain changes in practice and the development of new mines. A certain amount of technical investigation must precede the radical changes involved. The sooner this investigation is undertaken, the quicker the ships can be released for military purposes."

FUELLESS DAY ORDER REVOKED AFTER ENFORCEMENT ON 8 DAYS

Vastly improved weather and transportation conditions and a continuance of the embargoes authorized by the Director General of Railways were reasons given by Dr. Garfield for suspending on February 14 the heatles Mondays prescribed in the Fuel Administration regulation of January 17. The suspension order discontinued the operation of thise sections of the order relating to the use of fuel on Mondays from February 18 to March 25, both inclusive.

State Fuel Administrators retain the full authority to establish and enforce such restrictions and regulations as may be made necessary by coal conditions in their respective communities.

Dr. Garfield announced, February 8, that in view of improved weather and transportation conditions in the south all provisions of regulation of January 17, 1918, were rescinded. Heatless Mondays are lifted from North Carolina, Tennessee, South Carolina, Georgia, Florida, Alabama, Mississippi and Louisiana.

The Sandy Run Mine, of the M. S. Kemmerer Coal Company, it is stated has one man digging coal who earned $3,100 in 1917, and must pay an income tax on $1,000. This looks encouraging for the miners. Mr. Kemmerer is a director of The American Mining Congress.

CHECK TO BE KEPT ON ALL PURCHASES OF COAL AFTER APRIL 1

Regulations governing the retail distribution of coal for the coal year beginning April 1, 1918, are under consideration by the United States Fuel Administration. The Fuel Administration, in order to avert a recurrence of the coal shortage conditions of the past winter, proposes to put into effect a definite plan for the proper and equitable distribution of coal to domestic consumers throughout the country.

In so far as possible, the regulations by the Fuel Administration will be made flexible, in order to enable local Fuel Administration officials to accommodate the general rules to their local conditions.

Fuel Administration officials at work on the retail distribution plan are considering an arbitrary limit on the amount of coal that may be delivered to domestic consumers. It has been proposed to base this limitation upon the amount of coal delivered to domestic consumers during the coal year of 1917. In ascertaining the requirements of domestic consumers for the coming year the amount of coal the consumer has on hand would be considered in the plan.

It is probable that local Fuel Administration officials will be given the authority to require consumers purchasing coal to submit an attested statement setting forth the amount of coal a consumer has on hand, amount he has ordered from dealers, total amount used during the year 1917, and the amount necessary to meet his requirements during the coal year of 1918.

It is expected that the retail distribution plan will be definitely decided upon early next week, in order that it may be made effective on April 1.

SNEAD BECOMES ASSISTANT TO FUEL ADMINISTRATOR GARFIELD

L. A. Snead has been appointed assistant to United States Fuel Administrator, and will give immediate attention to the development and establishment of a plan covering an equitable distribution of coal for domestic consumers and will visit various cities and localities in order to obtain first hand information as to conditions and the remedy necessary to meet the situation.

Coal-Mining Fatalities Increase

The demoralization forced upon the coal-mining industry by war-time conditions is said by the Bureau of Mines to be responsible for the highest fatality record from accidents in that industry in the last seven years.

During the year 1917 there were 2,695 men killed in coal mining, which is an increase of 470 over the previous year.

D. W. Brunton, who is now a member of the Naval Consulting Board, is a frequent visitor at Washington.

CURRENT FEDERAL LEGISLATION

Up to February 28 there had been introduced in the present session of Congress, 14,307 bills and 385 resolutions. Of these, 3,975 bills were introduced in the Senate together with 132 resolutions. The bills in the House numbered 10,332 and the resolutions, 253.

The following bills introduced since our last report will be of interest to the mining fraternity:

S. 3379 by Senator King, authorizing the Secretary of the Interior to consolidate holdings by the exchange of public coal lands for private coal lands in certain cases, it being expressly provided that nothing in the bill shall authorize the issuance, or treatment, of the privileges granted as script or assignable rights or privileges. This proposed legislation is now awaiting action by the Committee on Public Lands.

S. 3450 by Senator Gore, providing for the establishment of experiment stations in engineering and in the other branches of the mechanic arts in connection with the land grant colleges in various states and territories.

S. 3380 by Senator King, provides that there shall be no withdrawal of mineral lands of the United States from entry and occupancy by the President. It provides that no reserves of any character or description covering or including within its limits lands of the United States containing minerals shall be created except by act of Congress.

S. 3714 by Mr. Simmons, provides for the creation of a War Finance Corporation with a capital stock of $500,000,000, to be subscribed by the Government, to be under the management of a Board of Directors consisting of the Secretary of the Treasury and four other persons to be appointed by the President, by and with the advice and consent of the Senate.

The corporation is authorized to afford fiancial assistance to enterprises whose operations are necessary or contributary to the prosecution of the war in cases where financing cannot be provided through regular banking channels and for the further purpose of regulating and controlling the sale and offering for sale of securities thereafter issued.

The corporation is authorized to subscribe for, acquire and own, buy, sell and deal in bonds and obligations of the United States and is authorized to issue bonds to the extent of $1,000,000,000 to mature not less than one or more than five years after issued.

The bill provides for a Capital Issues Committee, to be appointed by the Federal Reserve Board with the approval of the Secretary of the Treasury, which shall have full control of all securities to be offered to the public and authority to grant licenses for the sale of any securities.

H. R. 8761: By Mr. Kelly, authorizes the President to requisition and take over in contiguous tracts of not less than 100 acres each, any area, and to operate any or all coal oil, copper, iron and timber lands, and all rivers and streams from which power is or may be developed, with or without all or any part of any works, plant or equipment for developing such lands or power existing at the time of taking; also, to sell at cost the products and power therefrom derived. The President is required to the greatest extent practical to use the business organization operating the things taken over and is authorized to employ in the operation thereof any qualified persons at such remuneration as he deems proper and reasonable.

The bill further provides that organizations of the persons employed in such undertakings shall not only be recognized but encouraged and that such organizations shall have an equal voice in the management, operation and control of such undertakings.

$2,500,000 is appropriated for the expense of the Washington office in the management of the commission and the sum of $250,000,000 is appropriated for the purposes of the Act, which is to constitute a revolving fund. The provisions of the Act shall expire two years after the close of the war, except as to such rights or obligations as shall have been created before the expiration of the Act.

H. R. 8833: By Mr. Denton of Indiana, provides for the reimbursement of persons deprived of employment by reason of the order of the Fuel Administrator closing down establishments for the purpose of conserving the coal supply of the nation.

H. R. 10265: By Representative Frank Clark of Florida, authorizes the Secretary of Labor to provide housing, local transportation and other community facilities for war needs of industrial workers engaged in industries connected with and essential to the national defense.

The sum of $50,000,000 is provided for the carrying out of the provisions of the act which specifically points out that no work under the act shall be under a percentage or "cost plus" basis.

H. R. 8810: By Mr. Taylor of Colorado, provides for grants of coal lands to cities and incorporated towns for municipal purposes. It authorizes the Secretary of the Interior to patent lands of the United States classified as coal lands within any state or territory as a source of coal supply for the use of any city or town and for the use of inhabitants and industries thereof.

No more than 640 acres can be patented to a city and 160 acres for a town. The bill has been referred to the Committee on Public Lands.

H. R. 9199 introduced by Representative

Kitchin and referred to the Committee on Ways and Means is identical with S. 3714, providing further for the national security and defense, and for the purpose of assisting in the prosecution of the war, and to provide credits for industries, etc.

House Concurrent Resolution 30, introduced by Mr. Hilliard, urges the Director General of Transportation and the Fuel Administrator to give the earliest possible attention to the question of constructing a tunnel through the main range of the Rocky Mountains under or near James Peak in Colorado, which will give adequate tranportation for the great deposits of coal of northwestern parts of the state.

The bill declares that these coal deposits in Routt and Moffat counties are regarded as the greatest in the world, it being declared that anthracite exists there in greater quantities than in the whole of Pennsylvania.

The Moffat Railroad extending from the City of Denver through Routt County, now reaches this field, but the grade imposed in crossing the main range of the Rocky Mountains which makes transportation difficult at any time and during the winter period impossible of accomplishment.

With the completion of the tunnel suggested, it is pointed out that this immense coal supply would become accessible to Denver and over the lines of railroads going into that city be carried to many parts of the country now fuel impoverished.

H. J. Resolution 232 by Mr. Robbins of Pennsylvania, suspends penalty in government contracts where compliance was prevented by Fuel Administrator suspending operations of plants. It has been referred to the Committee on Judiciary.

RAILROAD FUEL QUESTIONS DISCUSSED AT CONFERENCE

A general conference on questions arising in connection with the supply of fuel coal to railroads was called recently by the United States Fuel Administration. Representatives of coal mine operators, eastern railroads, the office of the Director General of Railroads and the Fuel Administration attended

The Director General of Railroads and the Fuel Administration have undertaken to insure the cooperation of all concerned in settling various questions which have arisen regarding the supply of coal to the railroads, which are the largest users of coal in the country.

The conference selected W. K. Fields, President of the National Coal Association as Chairman and had a general discussion of recommendations to the Director General of Railroads and the Fuel Administration designed to secure the following results:

1. To provide a definite and dependable supply of good fuel for the railroads.
2. To avoid excessive use of transportation in obtaining railroad fuel.
3. To retain for other uses some coals of special quality which are now being used as railroad fuel coal.
4. To so distribute railroad fuel in connection with all other distribution as to obtain as nearly equal running time for all mines.

The matter of the distribution of coal cars to the mines was the subject of extended discussion, some of the operators contending that there should be no preferential allotment of cars, but that all the mines should share equally.

A committee was named consisting of one member from each of the railroads represented in the conference and one member representing each of the coal districts present, which should consider the questions they had been called to discuss and report its recommendations to the conference.

The railroads appointed the following committeemen: Delaware & Hudson, J. White Spray; New York Central, S. B. Wright; Erie, W. R. Collins; New York, Ontario & Western, Chas. A. Draper; Norfolk & Western, Geo. Dunglingson, Jr.; Lehigh Valley, F. L. Blendinger; Bangor & Aroostock and Boston & Maine, Frank C. Wright; Pennsylvania and Long Island, C. M. Sheaffer; Delaware, Lackawanna & Western, C. C. Hubbell; Canadian Northern, H. T. Rawlings; Central Railroad of New Jersey, J. F. Hinterleiter; Chesapeake & Ohio, D. T. Jellison; Baltimore & Ohio, W. L. Robinson; New York, New Haven & Hartford, Geo. G. Yeomans; Philadelphia & Reading, E. B. Crosley.

The West Virginia coal districts named the following committeemen: Fairmont, C. H. Jenkins; Clarksburg, V. E. Goeke; Coal & Coke, R. B. Isner; Preston County, E. H. Gilbert; Scott's Run, S. D. Brady, Maryland, F. W. Wilchire; Irwin and Guyan, S. P. Hutchinson; Kanawha, W. M. Puckett; K. & M., Robt. Buka; Smokeless, T. F. Farrell; Thacker, Keyser Hood.

Pennsylvania coal districts named the following: Mr. Field, Chairman ex-officio; Conemaught, T. L. Eyre; N. Y. Central, Mr. T. H. Watkins; Cambria, C. H. Jacobs; Reynoldsville, J. W. Trounce; Tyrone and Clearfield, Chas. A. Owens; Somerset, Edw. B. Chase; Broad Top, C. J. Langdon; Greensburg and Latrobe, W. G. Ireland; Irwin, S. B. Hutchinson; Somerset (B. & O.), T. W. Guthrie; Pittsburgh, J. P. Walsh.

The committee adjourned to meet again March 8.

Coal Lands Restored

Secretary of the Interior Lane announces the approval by the President of the restoration of nearly 160,000 acres of withdrawn coal land in northeastern Montana, south of the Missouri River adjacent to the Fort Peck Indian Reservation.

PERSONALS

Dr. R D George, of Boulder, Colo., is in Washington, where he appeared before the House Committee hearings in regard to the oil shale industry of his State. Dr. George has for years been state geologist for Colorado, and his statement concerning the process of producing oil for shales commanded the attention of Washington authorities.

G. W Lambourne, of Salt Lake City, Utah, and Mrs Lambourne, were in the east during February spending several days at Washington and New York City.

Many prominent western mining men are in Washington at the present time in regard to the leasing bill upon which hearings are being held, among whom are: J. H. Fry, S G. McMullin, A. L. Pierce, R. D. George, Mr. Potter, and Mr. Webb.

A G Mackenzie, secretary of the Utah Chapter of the American Mining Congress, who has been spending several weeks at the Washington headquarters of the organization, in regard to work on the Excess Profits Tax and matters of importance to western mining, has returned to Salt Lake City for a few weeks. He will be in the east again shortly.

Victor Brandt, of Tonepah, Nev., has been spending considerable time at Washington during recent months Mr. Brandt is an authority upon potash, and is greatly interested in the silver question. He has recently become a member of the American Mining Congress, and will give his assistance in carrying on its work.

George M. Taylor, president of the Colorado Metal Mining Association, is in Washington.

Arthur Hovey Storrs, 15 Park Row, New York, N Y., is secretary of the War Committee of Technical Societies, of which committee D. W. Brunton is chairman.

A. Scott Thompson, of Miami, who spent several weeks in Washington in the interest of the Miami mining district, has returned to his home

Dr. Henry Mace Payne, who is in charge of the operation of the Bertha Coal Company and affiliated companies at Pittsburgh, was in Washington during the month, calling at the offices of the Mining Congress.

J. F. Callbreath, secretary of the American Mining Congress, attended the meeting of the American Institute of Mining Engineers in New York in February.

William M. Conrad, assistant secretary of the Ameri an Mining Congress, in charge of southern territory, has been spending a few weeks in Washington looking after special problems affecting the mining industry of that section.

J. T. Burns, western secretary of the American Mining Congress, attended the meeting of the Northwest Mining Convention at Spokane, stopping en route at Butte, Wallace, and Casper, Wyo.

Albert Burch, of California, was a caller at the offices of the American Mining Congress recently, en route to Cuba, where he has gone as a representative of the U. S. Bureau of Mines, for the purpose of ascertaining the capacity of Cuba, West Indies, and Central America to supply manganese ore. Mr. Burch has joined the Bureau's volunteer staff.

T. A. O'Donnell, of Los Angeles, has been chosen by Mark L. Requa, head of the oil division of the U. S. Fuel Administration, to take charge of the oil production problem. Mr. O'Donnell is well known to the oil industry. He is a member of the American Mining Congress.

Walter Douglas, president of the American Mining Congress, has been spending considerable time in Arizona and the West where the properties of the company are, but is again at his New York office.

The Central West Virginia Coal Operators' Association recently issued a statement showing that 129 out of 148 mines were shut down owing to the lack of railroad cars. This threw out of work 9,840 men, who could have produced 56,705 tons of coal during the day. The American Congress has been working steadily trying to increase the car supply for this district, and recent results are more satisfory than for some time.

The Montevallo Mining Company, Mr. Lovell, president, have announced that they will secure an increased allotment of convicts under a new contract they have made with the State, and will materially increase their output. The Montevallo Company is the largest producer of domestic coal in Alabama.

George H. Crosby, a director of the American Mining Congress, is in California.

Sidney J. Jennings was elected president of the American Institute of Mining Engineers at their recent meeting in New York. Dr Henry F. Drinker and Robert M. Raymond were elected vice-presidents; Hennen Jennings, Samuel A. Taylor, F. G. Cottrell, Arthur Thacher, and George C. Stone, directors.

Some interesting industrial facts about Arizona have recently been issued by The Manufacturer.

Arizona is erecting a $175.000 school of mines, $100,000 of which was donated by the mining companies.

Wages paid in mines and smelters estimated for 1917, $71,000,000; men employed, 50,000.

Valuation of producing mines of Arizona, as compiled by the State Board of Equalization, is $329,000,000.

Cochise County has a population of about 50,000, and per capita wealth of about $2,000 each.

Of Arizona's total wages of $71,000,000, the copper mining industry pays $62,400,000, employing 40,000 men of the total of 50,000 employed in the State.

James S. Douglas is talked of for Governor of Arizona at the next election. Mr. Douglas is now in France, where he went early in the war, serving for $1 per year and maintaining his own staff in charge of the stores and warehouses of the Red Cross. Some of the best men in Arizona are serving with him at his request, and consider it a great honor. He is the principal owner of the United Verde Extension Mining Company, and is an enthusiastic member of the American Mining Congress. He is a son of Dr. James S. Douglas, and a brother of Walter Douglas, the president of the American Mining Congress.

H. Foster Bain is returning from China to accept the assistant directorship of the U. S. Bureau of Mines, under Dr. Van H. Manning.

Southern Coke Prices Increased

An order affecting coke prices of the operators in certain coke districts of Georgia, Alabama, West Virginia and Oklahoma was issued last month. The order is in further regulation of the sale and distribution of bee hive coke.

The maximum price, f. o. b. cars at ovens, for any grade of coke made in Walker County, Georgia, by the Durham Coal & Coke Company shall be $8.75 per ton.

Prices in the Black Creek, Brookwood and Blue Creek districts in Alabama may be $8.00 per ton except that the coke made by the Empire Coal Company at Empire, Ala., may be charged at a maximum of $8.25.

Maximum prices for the Big Seam district in Alabama are fixed at $6.75 except that the New Castle Coal Company is permitted to charge $7.50 for coke made at its ovens from coal mined in the same district.

The highest price that may be charged by the United States Cast Iron & Foundry Company, at Bessemer, Ala., is $8.50 per ton.

A maximum price of $8.00 per ton was placed upon coke produced in the New River district of West Virginia which is officially described in the order of the Fuel Administration as that territory on the Chesapeake & Ohio Railroad running from Thurmond, W. Va., north as far as Elmo, and on the Chesapeake & Ohio and Kanawha, Glen Jean & Eastern Railroads running from Thurmond as far southwest as McDonald.

Oklahoma coke prices were fixed as follows:

The maximum price at the ovens of the McCurtain Coke Company at McCurtain, Okla., shall be $10.75 for smelting coke and $11.75 for selected 72 hour foundry coke.

Continued from page 5

Goodin-Reid & Company.................. 6
Goodman Mfg. Company.................. 12
Goodrich Rubber Co., The B. F. Inside front cover
Granville Supply Co...................... 36
Hazard Mfg. Company.................... 18
Hercules Powder Company................ 11
Hockensmith Wheel & Mine Car Company 34
Hoffman Brothers........................ 41
Holmes & Bros., Inc., Robert............. 15
Hunt & Company, Robert................. 32
Illinois Zinc Company.................... 32
Indiana Laboratories Co., Inc., The........ 41
International High Speed Steel Company... 4
Irvington Smelting & Refining Works..... 32
Jeffrey Mfg. Company, The Outside back cover
Koering Cyaniding Process Company...... 26
Laubenstein Mfg. Co...................... 36
Ledoux & Company, Inc.................. 32
Leetonia Tool Company, The............. 36
Lehigh Coal & Navigation Company, The.. 38
Longyear Company, E. J.................. 32
Macomber & Whyte Rope Company....... 18
Manhattan Rubber Mfg. Company........ 16
Marioneaux, Stott & Beck............... 41
Monongahela Wood Preserving Co......... 41
Mudd. Seeley W.......................... 41
Nicholson & Co., W. H.................... 41
Ohio Brass Company, The................ 34
Ohio Grease Company, The.............. 28
Pacific Tank & Pipe Co.................. 28
Payne, Henry Mace...................... 41
Phelps-Dodge Corporation................ 32
Phillips Mine & Mill Supply Co........... 14
Pitkin, Lucius, Inc........................ 32
Pneumelectric Machine Co., The.......... 15
Professional Cards....................... 41
Prox Company, The Frank................ 30
Quaker City Rubber Co................... 16
Randle Machinery Company, The......... 36
Richards, J. W........................... 41
Roebling's Sons, John A.................. 18
Ruhl & Stewart.......................... 41
Springer, Andrew M...................... 7
Standard Scale & Supply Co., The........ 14
Stephens-Adamson Mfg. Co............... 20
Taylor, Samuel A........................ 41
Thorne, Neale & Company, Inc........... 38
Tout & McCarthy........................ 41
Union Electric Co........................ 26
Vulcan Iron Works....................... 6
West Virginia Rail Company, The......... 36
Wilmot Engineering Co.................... 36
Wood Equipment Company, The.......... 12
Worthington Pump & Machinery Corp..... 8
Wyoming Shovel Works.................. 3

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THE GREAT ISSUE

To win the war with Germany is the great issue before the American people. Not until we have undertaken some of the real burdens of war shall we fully comprehend that no other issue is of any importance, that every other cause must be subservant to the successful termination of this great conflict. There can be, there must be, no doubt of the outcome. It is not to be conceived that any one of the nations now acting under the general term of Allies, shall withdraw from the fight, but if all should withdraw, the United States must, and can, and will win the war with Germany. If the day should come when we are fighting alone, we should understand then, as we have not yet imagined, the importance of bending every effort, giving every ounce of strength, and rendering every hour of service to the cause which is humanly possible.

We are withdrawing from the active field of production two millions of men, the flower of our young manhood to go into the trenches. It will require the entire effort of a largely increased number to produce the munitions and equipment, and transportation which are essential to make the fighting force effective. The men at the front must be fed. The men who are rendering special service to keep the men at the front must be fed, and the men not so employed must increase their productive capacity sufficiently to make up for this shortage, else the war must fail and democracy in the world become a failure. We believe profoundly that the laboring men of this country are as intensely loyal as a whole as it is possible for them to be. But we have serious doubts as to the loyalty of some of their leaders who wax eloquent in their discussion of labor's loyalty, and, at the same time, insist that the standards which have been achieved by labor during its many years of progress, must be maintained without regard to the effect upon the nation.

Of our estimated population of one hundred million, the census reports show that approximately forty millions are engaged in productive occupations. We are withdrawing ten million of these men from the productive occupations in which they have been heretofore engaged, and we are applying that service and that capacity either to fighting in the trenches or in the work which is essential to the support of this fighting force. We are withdrawing 25 per cent of the productive capacity of the country from its usual service. It is possible, to some extent, to diminish the use of the necessities, and, to a large extent, to do away with the luxuries. But granting this, we are still facing a shortage representing the difference between what we may save by enforced economy, and the awful destruction and waste of war.

Thirty million workers must produce as much or more than forty million workers have heretofore produced. This means that a service equal to ten million men in ordinary times must be supplied from some source or else the people who have heretofore consumed the product of the ten million workers must be in want. How can this deficiency be met? There are four ways and four ways only. First, that our people shall deny themselves one-fourth of the products which they have heretofore consumed. Second, that ten million additional women shall undertake more or less manual labor. Third, that the laboring people of this country shall work ten hours a day. Fourth, that ten million laborers shall be imported from other countries from which they may be obtained to fill up this gap in the productive capacity of the country. Which shall it be? MINING CONGRESS JOURNAL advocates the greatest economy in the use of all these products. So far as it is possible, this shortage must be met by greater economy. Second, MINING CONGRESS JOURNAL advocates an increase in the hours of service as altogether preferable to either requiring women to do this extra work or the importation of labor from China, probably the only source from which we can hope today to draw a foreign labor supply. Labor leaders should face this situation. The writer believes in the eight-hour day without qualification; but he believes in time of war that this liberty should be cheerfully surrendered to meet its requirements. Unless the productive capacity of the nation can be increased sufficiently to make up the waste which is now being created by war, by the increased capacity of our own workmen, we shall be forced to import sufficient labor to meet these requirements.

This is an important question, and one which relates directly to the great issue before which all others must take second place.

A BUSINESS SUGGESTION

The American people are being treated to some very interesting inside views of conditions in Germany as viewed by Ex-Ambassador James W. Gerard, during his official stay in that country. In discussing the industrial situation Mr. Gerard makes the following comment, which is well worthy of the careful consideration of the American people:

> A suggestion—Why not start a great governmental chemical school or give protection for a certain number of years to dyestuffs, medicine, chemical and cyanide materials? All these industries are run here by the trustiest trusts that ever trusted and by their methods keep American manufacturers from starting the business. A Congressman represens one of the best firms, in his statement that it is impossible to start such manufactures in America. Our annual tribute to these trusts is enormous. One dyestuff company here employs over 500 chemists. Only big or protected business can compete. This war has shown that we should not be dependent on other countries for so many manufactures.

The present would seem to be the most opportune time for the development of every industry for which this country possesses the raw material. The present shortage of manganese, pyrite, chrome and other minerals points unmistakably to the necessity in war times, and to the importance in times of peace of the utilization of our own resources in manufacturing those goods which are essential to the nation's progress. Just at this time the shipping now being used in the annual importation of more than 2,000,000 tons of ores from Brazil and Spain, and other points should and must be released for the transportation of troops and supplies to the front and the country finds itself with its own natural resources undeveloped and with the necessity of developing these by a most expensive process because of the need of haste in the development.

Ambassador Gerard's suggestion is important at all times and vital at this time. We trust the American people will put this suggestion into active practice.

BREEDERS OF CLASS HATRED

Muckraking journals of the Hearst type find much satisfaction in their continued criticisms of what they term the injustice of conscripting men to go into the army, while not conscripting wealth. The Washington Times says:

> Government conscripts men on its own terms. The men risk everything and get nothing. The Government politely begs for money on the financier's terms, raising the rate of interest as required. The financiers get absolute security on their money, and risk nothing. Which would you rather be

in the United States, an ordinary man or any ordinary dollar as regards safety?

It is estimated that the War Excess Profits Tax law will yield to the Government approximately $3,500,000,000. It takes from 20 to 60 per cent of the profits in excess of those gained in a pre-war period, limited to from 7 to 9 per cent. The greater part of this tax will come from the very wealthy men of the country and will apply first to corporations and again to the dividends as they pass into the hands of individual stockholders. In many instances this tax will amount to above 80 per cent of the total net profits earned by individuals during the year 1917. We have yet to hear a single individual object to the payment of this enormous tax. The Government finds no trouble conscripting from the wealth of the country the greater part of its earnings. It must not be lost sight of that the present tax is but a part of the expense of the war and that the amount for which we are issuing bonds must sooner or later be met by the same capitalist to which The Washington Times so sneeringly refers. It has been stated that it costs the United States fourteen times as much money to maintain a soldier at the front as Germany pays for the same service. We doubt the truth of this statement, but whatever it costs, the patriotic people at home are going to bear the burden without complaint and take off their hats in reverence to the boys in the trenches who are bearing the real brunt of the battle. It may be that The Washington Times and its sympathizers will some day learn that the American people are patriotic and loyal. The Kaiser is not the only one who has yet to learn his lesson.

THE OIL SHALE RESOURCES OF THE WEST

Necessity is the mother of invention. It also is the mother of the discovery of materials as well as of plans for their utilization. The importance of petroleum to the industrial world led to the discovery of the petroleum values in the oil shale deposits of large areas, hitherto considered barren and worthless. With the appreciation of this wonderful oil wealth comes the question as to how the Government shall control its interest in these lands so as to best serve the public interest.

Oil shale development will require enormous investment, long time operation, and a large acreage in order that a profit may be made upon the enterprise at a price for the product which can bring it in fair competition with petroleum developed from other sources. Congress now has before it another public lands question which a few years ago was scarcely dreamed of. Shall the Government part with its interest in these lands by patent to individuals, or shall they be held and their operation permitted under a leasing system? The present laws governing mining locations are not at all adapted to the location of oil shale lands. It has been assumed that these lands could properly be located under the Placer Mining Laws and thousands of acres have been so appropriated. Large sums of money are being spent by these locators in discovering the best methods of treatment, with a view to the erection of plants of sufficient size to justify profitable production.

The present thought is that no plant can be constructed of sufficient size to be economicaly profitable for a less cost than a half million dollars. It is hardly to be expected that such a plant will be constructed upon leased ground. It is very unfortunate that the question of oil shale land titles had not been anticipated in order that whatever system shall be adopted might be uniform as applied to all oil shale locations.

At this time a considerable part of the oil shale lands have been filed upon under the Placer Mining Laws. Large areas have been withdrawn for governmental uses. No system of storage is so well adapted to provide for the future, nor to be compared with the oil shale deposits. It is equally true that no system of land tenure should be adopted which requires development in advance of that period during which the oil itself is essential to public uses. A leasing system, requiring immediate and continuous development might result in the production of oil in advance of public necessities, and a competitive price which would lead to waste in its use. It is therefore essential if these lands are to be appropriated and these reserves held for future use, that it shall be upon some plan which does not require immediate development, but that whatever charge is made for holding such land shall be made to insure to the benefit of the locality in which the lands are situated. In other words, it would seem better that these lands be owned by individuals and be subject to the taxing power of the state, than that they should be under a leasing system requiring development in advance of public requirement.

A very serious question of public policy is apparent even to those men who believe that the Federal Government should mantain control over its western public lands. Mining Congress Journal hopes that this matter may receive the most careful consideration, and that a system may be adopted which will best serve the interest of the public as a whole. Uncertainty of title will lead to a sea of litigation and prevent development. An immediate and pressing need exists for a federal declaration which will settle, as far as may be, the legal questions concerning title to the oil shale lands of the West.

LABOR'S WEAPON OF DEFENSE

Self defense is the first law of nature. A labor strike is labor's weapon of self defense. The right to use this weapon by the individual is undeniable where the rights of the individual are encroached upon. The right to take or imperil the life of another only exists where an equal or greater danger is imminent to the life of the one exercising his right. The right of an individual to act by himself is entirely distinct and may exist when the right of the members of an organized body to act together may not exist. Under the common law an agreement to do an unlawful act was made a conspiracy. When the existence of society is threatened by the combined action of any considerable portion of its membership, such conspiracy, if effective, becomes a capital offense. This principle is best illustrated in the case of the soldier whose every act of insubordination is punished with the most severe penalties. During a war every loyal citizen is a soldier, in effect if not in discipline, and no act which tends to weaken the fighting force of his country should be tolerated.

THE SILVER SITUATION

Very important financial legislation has commanded the attention of Congress to the exclusion of consideration of the plan to make available the silver reserve in the United States Treasury for the settlement of foregn trade balances. Congress has moved with extraordinary rapidity considering the enormity of the problems which it has had under consideration.

Before this issue shall reach our readers, Senator Pittman will have introduced in the Senate a bill providing for the release of two hundred and fifty million silver dollars now held in the United States Treasury as security for silver certificates in order that bullion may be made available to pay the government's bills to countries which will accept silver, and thus retain in our Treasury the gold upon which an increasing burden of credit now rests.

Senator Pittman's bill will provide that the silver thus released shall be replaced by the Government by contracts for future delivery of silver at $1 per ounce, a tacit agreement having been secured from the silver producers to contract on this basis. Silver producers generally believe that the law of supply and demand will stimulate the price to a point largely in excess of $1 per ounce but as a patriotic duty under present conditions have been willing to consent to a fixed price in order that the Government's needs may be cared for. This plan was endorsed by a resolution adopted by the conference of delegates from various states in attendance at the

January convention of the Colorado Chapter of the American Mining Congress, and was also approved by the Wyoming Chapter at a later convention held at Casper.

It seems very important that this legislation shall receive prompt consideration, and it is believed that the bill will be favorably considered.

EMBARGOES AND INDUSTRIAL INEFFICIENCY

The wonderfully efficient machinery of production, transportation, and exchange, has been developed by the best business brains and experience of the country. Interferences with its orderly conduct which are thought to be and, perhaps, may be necessary during the war times, force a realization of the value of this efficient organization. The illustration of the loss of a great battle because of the lack of a horse shoe nail forcibly applies to the present situation. Freight embargoes, intended to better the situation, have resulted in complex and indirect ways in hampering business production, and frequently creating a worse dilemma than the freight embargo was created to prevent. The files of this office furnish hundreds of illustrations in which great business enterprises have been crippled because an embargo has been placed upon the shipment of material without which the plant cannot operate. The embargo against less than carload shipments of machinery has greatly hampered, and, in many instances, entirely shut down coal mining plants which could not operate without the replacement of certain parts of its equipment. Machinery which has worn out or broken down, and which constitutes but a small part of a carload shipment, may be absolutely necessary to the operation of the mine. The MINING CONGRESS JOURNAL does not desire to criticize those who have these matters in charge. Its requests for relief have been met with the utmost courtesy, and an earnest desire to help. The enormous organization which is necessary to care for the government business at this time cannot be created in a day. Literally, thousands of men and women with the best brains and experience in their respective lines are now in Washington making their best effort to speed up the government work, and frequently these men are only in each other's way in that an order intended to right one grievance has the effect of putting out of joint some other essential condition.

For instance, shipments of tungsten and molybdenum concentrates by the Empire Smelting and Refining Co., of Deming, N. M., to Pittsburgh for use by the steel companies in tempering and hardening the steel that goes into guns for the Government, cannot be shipped east of the Illinois state line because an embargo has been placed on all other articles than cattle, coal, coke, peroleum, and foodstuffs for home consumption Undoubtedly this order represents the exercise of the best judgment possible. Notwithstanding these good intentions, the Pittsburgh plant wholly dependent upon the New Mexico production might, because of its lack of hardening alloys, be unable to construct the guns needed by our armies at the front, and be the cause of the loss of a great battle in the greatest war in the world's history, "All for the want of a horseshoe nail."

THE FERRIS BILL

The report of the House Committee on Public Lands on the Ferris bill is awaited with much interest. The Walsh-Pittman Bill, S. 2812, covering this subject was passed by the Senate January 7, 1918, and the report of the House Public Lands Committee will be considered by the House as a substitute for the Walsh-Pittman bill. This bill provides that lands may go to patent under the existing law or may be leased under the provision of the bill. The American Mining Congress congratulates the West upon the fact that its protest against a Federal leasing bill has secured a recognition of the principle of private ownership, and that the provisions controlling these leases have been made so libera' and practical under the present bill. It is hoped that the oil relief provisions will be such as to protect the Government and, at the same time, do full justice to every oil claimant who, in good faith, has undertaken to develop the oil resources upont he public domain.

A SHREWD GAME OF LABOR POLITICS

Who can conceive of men in the second or third line of defense at the front laying down their tools with the battle raging on the first firing line and its result depending upon the work that is being done by those in the rear? What soldier knows anything about an 8-hour day? Does the glory of service make sufficient recompense for the difference between $30 a month and a 24-hour day, and $150 a month and an 8-hour day? There should be a marked distinction between the credit given to the soldier who risks his life and endures the bitter hardships of war and the credit given to anyone at home, no matter how much he may do.

At the annual meeting of the members of the American Mining Congress in New York City, in November, President Walter Douglas insisted that no declaration should be adopted looking to the change of any labor conditions which existed prior to the war. This position was representative of the employers generally throughout the country. On the other hand, hundreds of different enterprises have been forced to adopt the closed shop plan since it was tentatively agreed that pre-war conditions should be maintained during the war period as to all disputes between labor and capital. If the writer is any judge of the situation, the game of labor politics is being played with great effect under cover of a barrage of pretended loyalty. We do not question the intense loyalty of the great body of American workmen, but we do seriously question the labor leaders who are taking advantage of the situation to establish the closed shop at every possible point.

ABOUT SILVER PRODUCTION

The history of the world's producton of silver is a good illustration of the fact that price is the ultimate dictator of production.

During the whole history of the world the production of silver has been approximately fifteen and one-half to sixteen ounces of silver to one of gold. In the days of high gold values by which is meant that period when labor, machinery and supplies were comparatively cheap, silver production expanded until the production was on the ratio of twenty-two and one-half ounces of silver to one of gold.

This over-production, while it had but a nominal influence upon the comparative ratio of the total world stores of gold and silver, resulted in governmental action which destroyed the parity and under the later conditions the production of silver dropped to its present production ratio of about seven and one-half ounces of silver to one of gold.

The largest silver producer in this country is the Amalgamated Copper Company, by which silver is produced only as a by-product, in fact a very large part of the silver production in the United States is produced as a by-product upon which the price of silver has little influence.

Were is not for this fact, the effectiveness of the statement that price is the final dictator of production would show itself more effectually by a reduction of silver production very much below the present ratio. The probable increasing demand for the use of silver as a money metal in silver-using countries will undoubtedly have a marked influence in restoring silver to its old time value.

OIL DEVELOPMENT

The need for a greater development of the oil supply of the United States is greatly intensified by the fact that rich oil fields abroad have recently fallen under control of Germany. While this advantage may be temporary, it forces the Allies to depend more largely upon the supply of the United States and Mexico, while it gives to the Central Powers an adequate supply. Russia's production for the last few years has approximated 70,000,000 barrels. Last year the United States produced 68 per cent of the total world production of 516,000,000 barrels. Mexico's production in 1917 was estimated to be 60,000,000 barrels. The present high cost of labor and supplies, added to the very great difficulty in securing oil well casing, has almost brought to a standstill the development of new oil fields. Not only have the steel mills been called upon to manufacture materials directly connected with war purposes, but even where oil well casing has been available, difficulty has been experienced in securing transportation for the oil well casing to the fields of operation. The uncertainty growing out of the War Excess Profits Tax law has also had its influence in preventing development work. Production is not keeping pace with consumption and as the result the reserve stocks of oil in the country are gradually diminishing. The uncertainty growing out of probable Federal legislation affecting the title to the oil lands in the public lands states, has also had its influence in preventing development work. While there is no immediate danger there is great need that every effort shall be made looking to the stimulation of the development of new oil territory.

THE MINERAL CONTROL BILL

A bill to stimulate the production of various rare minerals has been under consideration by the House Committee on Mines and Mining. Hearings were conducted for several days, and it is expected that the proposed bill will be revised and introduced by Congressman Foster at a very early day.

A synopsis of the hearings will be found upon another page of this issue of the Mining Congress Journal.

We have little to add to the editorial in the March issue entitled "Federal Control of Metallic Minerals." The House Committee on Mines and Mining fully intends to so word the bill that it shall apply only to the rare minerals therein specified, and that the right to commandeer any mine or plant shall apply only to idle mines or plants or those which are but inadequately operated. The necessity of legislation of this character is very great for the stimulation of the production of certain minerals which are being imported from South America, Spain, and other points. More than two million tons of manganese, pyrites and chrome now being imported are absolutely essential to the continuance of our industries. In fact, there will be an increased demand for pyrites from which sulphuric acid is made because of the increased demand for explosives for which sulphuric acid is required. The ships now engaged in importing these minerals should be at once released from that service and utilized in transporting our troops and munitions of war and food to France.

The steel industry cannot operate except the shortage thus created shall be made up from some other source. About eight hundred thousand tons of manganese ores are required each year to maintain the steel industry, and for other necessary uses in this country. It is estimated that about one hundred and twenty-five thousand tons have been produced in the past, and that an importation of at least six hundred thousand tons is essential. To produce this from the low grade ores of this country is one of the principle purposes of this legislation. Mining Congress Journal reiterates its statement of last month:

> "If the government is in need of manganese ores the guarantee of a sufficient price to justify production will immediately put in motion the best possible machinery, i. e., individual capital and personal supervision, charged with the necessity of exercising every economy and the greatest efficiency in order to make the greatest profit upon the investment. These are the means through which production upon a commercial basis may be assured."

Mining Congress Journal fully believes that some prompt and efficient method should be quickly made available in order to meet this world exigency at this time. It will endorse and approve and lend its influence in securing the adoption of any plan calculated to meet these requirements. A poor plan, well followed, is altogether better than a better plan which is not put into effect. MINING CONGRESS JOURNAL still believes that no new agency is necessary to accomplish these purposes, and that the Interior Department which has had to do with the development of mining resources, which has, within its various bureaus, all the available information concerning these resources and the best known methods of production and treatment, is in a better position to stimulate a private enterprise to accomplish these ends than any new agency which can possibly be selected.

MINERAL IMPORTS REDUCED TO LESSEN STRAIN ON SHIPPING

Under the power conferred upon him by the Trading with the Enemy Act, the President, on February 14, 1918, issued a proclamation which required an import license for all articles from all countries. The chief purpose of this was to enable this Government to eliminate less essential imports to the end that tonnage might be conserved, and additional shipping be made available for the transportation of troops and supplies to Europe. Similar steps have been found necessary by the Allies, and England, particularly, has found it necessary to impose most drastic import restrictions in order to most effectively devote her shipping to the successful prosecution of the war.

For many weeks, a corps of specialists has been giving the closest study as to the manner in which this import restriction would be exercised, so that the greatest saving could be accomplished with the least injury to our ordinary commercial activities. The question was still further complicated by the earnest desire of this Government to affect, as little as possible, the industry and commerce of the countries associated with us in the war, and to work as little hardship, as possible, to neutrals. The question involves close cooperation with the Shipping Board and consultation with the State Department, the Treasury Department, the Food Administration, and other branches of the Government, as well as the War Trade Board, within whose province falls the actual administration of the control. As a result of these deliberations, the War Trade Board, through its Bureau of Imports, publishes the first list of restricted imports.

Applications for license to import the articles appearing on the list will not be granted, except under the following circumstances:

1. When the articles mentioned are actually shipped from abroad prior to April 15, 1918.
2. When coming by rail from Mexico or Canada when the goods in question originated in those countries or in others from which such goods are being licensed for import.
3. When coming as a return cargo from European points and then only (*a*) when coming from a convenient port, (*b*) when loaded without delay, and (*c*) when the importation from Europe is not specifically prohibited in said list.

In the future, therefore, applicants for licenses to import articles mentioned in the list will be obliged to show, in their applications, the existence of such of the facts above outlined as will warrant the granting of such licenses. In the case of shipments from European points, the most satisfactory evidence will be proof that shipping space has been actually engaged. The present form of application for import license will generally be found adequate for this purpose, and where this is not found to be the case, a letter setting forth the additional facts should accompany such application.

The United States consuls have been instructed not to issue consular invoices on and after April 15, 1918, for the articles mentioned in the list without first being furnished with the number of the import license or being given other evidence of the issuance of such license. Shipping agencies are also advised not to accept for shipment consignments of the articles mentioned in the list without similar evidence of the issuance of the import license. This applies only to the articles mentioned in the list. No proof of the issuance of the import license for articles not so mentioned is to be required either by consuls before issuing consular invoices, or shipping agencies in accepting freight. It will devolve upon importers, therefore, to advise their shipper abroad by letter or cable, of the number of their import license so that such shipper will be able to furnish the same to the consuls and the shipping agencies. This will mean that importers must be diligent in applying for import licenses a sufficient time in advance of the shipment so that the number of the import license may be communicated abroad in ample time.

The articles on the list, which affect the mining industry directly, are:

Asbestos, all acids, muriato of ammonia, all coal-tar distillates except synthetic indigo, all salts of soda except nitrate of soda and cyanide of soda, cryolite, except not to exceed 2,000 long tons for the year 1918, explosives, except fulminates and gun powder, fluorspar, infusorial and diatomaceous earth and Tripoli, nickel, plumbago or graphite (until July 1, 1918, thereafter not exceeding 5,000 long tons for remainder of 1918), pyrites (except not exceeding 125,000 long tons to October 1, 1918), zinc.

MINERAL CONTROL BILL DISCUSSED AT LENGTH

House Committee on Mines and Mining Holds Extended Hearings—Most of the Arguments Favor the Passage of Such a Measure

After extended hearings the Committee on Mines and Mining of the House of Representatives is now whipping into shape for introduction a bill providing for a mineral administration modeled along the lines of the food control act. The need for the bill, the objections raised to it and a general survey of the situation may be gleaned from the following extracts from representative testimony presented before Dr Foster's committee.

An excellent idea of the objects of the bill may be secured from a perusal of the testimony of Dr. George Otis Smith, Director of the United States Geological Survey. His testimony follows:

Dr. Smith. The real matter before us is the question of speeding up mineral production in the United States. When I speak of that I do not want for a moment to give the impression that the mineral industry is in any sense a slacker under present conditions. The mineral industry, as many of you from mining states know, has met the war time test in a remarkable way. Since the war began the country's production of the principal metals, the really essential metals, such as aluminum and zinc, has doubled in output in those two items. In the case of copper the production has increased 50 per cent; in lead about 40 per cent, and in iron 25 per cent; and the same is true of coal. The production of last year as compared with the production of 1914, was 25 per cent in excess. I think, possibly, we fail to recognize how much that really means. That percentage of increase in those six metals that I have mentioned means an increase in tonnage of nearly 10,000,000 tons. That load was thrown on the railroads, for instance, last year, as compared with the normal traffic of the years immediately preceding the war.

Of course if we come to express that in tonnage of ore it is several times the 10,000,000 tons that I mentioned. Then, if we add to that the big increase in coal you will see to what an extent the output of the mining industry as a whole has increased. That is the way I think that we can fairly express the response of the mining industry to this war time test

The Government activity in connection with the mineral industry has been along the line of activity on the part of the various specialists in the Interior Department; the metallurgists of the Bureau of Mines have conducted their investigations in aid of this or that part of the industry, and the Geological Survey has been active hunting for new supplies, and where these new supplies have been found giving such aid as is possible to those intending the development. It has been in many cases a hurry-up service that has been rendered, and there has not been any special recognition, that is, by legislation, in reality beyond that which was in force before the war began.

In the matter of statistics the Geological Survey, as you know, for nearly 40 years has been gathering the statistics of production of the mineral industry, publishing them each year, annual statistics, and just as production has had to speed up we have had to speed up in the matter of statistics for the use of the war boards, the producing agents of this and the allied countries, annual statistics of production for the use of the Shipping Board, the War Trade Board and the War Industries Board. They want not simply the figures of last year, but the figures of last quarter and of last month; and we therefore began to supplement our annual inventories, annual census, of the mineral industry, with quarterly figures on such subjects as manganese, magnesite, brogan, mercury and felspar. We are getting those figures each quarter.

We began a year ago to get coal figures by the month, and so last year we began to get monthly returns on petroleum and at the present time we are also getting monthly reports on sulphur, asphalt, antimony, secondary aluminum and others.

Mr. London. How is the statistical data obtained?

Dr. Smith. By correspondence with the producers; and we are going even further, in order to aid the governmental boards, and first of all the Fuel Administration, we are getting weekly statistics on coal, and then on the metals, copper, zinc, lead and aluminum. Those weekly statistics, for instance, on the principal metals are secured from the large refiners, and we have confidential information that can be put at the disposal of these buyers, showing just what was the production last week. The figures are coming in this morning by telegraph of the production of last week, up to Saturday night of copper, lead and zinc, for instance; the stocks on hand Saturday night. Also we have the commitment list which must be placed against those stocks up to the present time, the commitments up to June 30.

Those statistics are available, I say, in order that the purchasers can place their orders where they can be filled. In the case of zinc we have some five grades; in the case of lead, two grades. I believe of the lead itself as well as the lead containing antimony. The same is true in regard to aluminum and copper, and also with reference to virgin aluminum we have also monthly figures, and also figures on the production of secondary aluminum, from the scraps and aluminum waste which is remelted and placed upon the market.

I mention these details to show you how large the government interest in all these metals is.

It is up to the mineral industry to supply our Government and the other governments with raw materials. What I have said in regard to the expansion and output of metals is simply an index to the industrial expansion of the country that you are all familiar with, and that expansion, of course, that has been made so prominent in the public press has involved the large consumption of fuel. And yet last year the fuel, the soft coal, the steam coal production of the country, was 8 per cent higher than ever before, 25 per cent higher than before the war.

Mr. Welling. Has the consumption of these metals kept pace with the demand for the metals, lead, copper, zinc, etc., and those other very essential minerals?

Dr. Smith. In our principal metals, such as iron, aluminum, lead, zinc and copper, we are producing an excess over our domestic requirements, for, as you know we are exporting the raw metals in considerable amounts, and in the case of some of these minor metals, so-called, not because they are of minor importance, but because they are of minor quantity, I will give you the figures in just a few minutes to show to what extent we are meeting the demands of consumption.

Under the changed conditions which began in 1914 we have realized certain deficiencies in our domestic supplies. We have been cut off from the world to some extent in the matter of imports, and the world, on the other hand, has been making larger demands directly or indirectly upon us. Of course the potash case is the one that has been before us since 1912, before the war. Now in those deficiencies there is some amount of encouragement, I think. In the case of potash, before the war we produced practically none; we are now meeting our requirements to the 10 per cent of our nominal requirements by domestic production. Take such a material as magnesite; we have increased the production of magnesite from 10,000 to 310,000 tons last year.

Mr. Garland. You met all the requiremencts in that?

Mr. Smith. In the case of magnesite I figure 99 per cent of our requirements are met by the domestic supply, and fortunately that can be increased by nearly developed deposits in Washington and California. Another case that might be cited is one you will hear very much of in this bill, Mr. Chairman, that of manganese. To show how we have speeded up on manganese perhaps the best statement that I can make is that at the present time we are mining more high grade manganese, nearly twice as much high grade manganese in a single week, as we did in the whole year, 1914.

Mr. Taylor. Where does it mostly come from, and what is it principally used for?

Mr. Smith. Its principal use is in the metallurgy of steel. The largest producer of high grade manganese last year was Montana. In the lower grade Minnesota stood first and Colorado second, if I remember the figures. In the higher grade, which is the grade of manganese that is brought into this country in large quantities from Brazil, and for that reason is an acute problem before the Shipping Board. Montana and California, Arizona, Arkansas and Virginia were the leading producers, and this coming year Nevada is going to be a large producer.

Mr. London. What are the essential qualities of manganese?

Mr. Smith. The high contents, of course, is the manganese itself, but an alloy content of silica and iron and phosphorus.

The Chairman. How much do you import of manganese?

Mr. Smith. You will have better authorities on manganese before the week is over, probably, but it is pretty hard to express the exact tonnage of the imports last year. Mr. White probably can give you the exact figures.

Mr. White. The total imports of high grade manganese ore in 1917 was 630,000 long tons. In addition, about 40,000 tons of the alloy, ferro-manganese was imported from England, being the equivalent of about 100,000 tons additional ore.

Mr. Smith. Our own production of the same quality of ore, that containing over 40 per cent of the metal, was 113,734 tons. Those figures are subject to revision upward, as there are some returns not wholly received. However, at the present time it is figured we are producing at the rate of 20,000 tons a month. Our estimate for the six months is 120,000 tons, or essentally the equivalent of the total for last year.

Mr. Welling. How is the production of this metal as compared with the needs. Are we keeping pace with our needs?

Mr. Smith. Last year we produced something like 23 per cent of our needs; we are doing much better than that now, but that seems to be a fair expression of the extent to which we are meeting our requirements.

The Chairman. So we are importing about 75 per cent.

Mr. Smith. In one form or another. That is for 1917. I would not say what we are producing now.

Mr. White. Of the high grade ore we imported last year at least five-sixths, producing about 100,000 tons and importing about 750,000.

The Chairman. As Secretary Lane has arrived we will now hear his statement.

Mr Smith. I think I might take up the list of minerals in which we realize that this country has experienced already some deficiency and give some measure of the extent to which the production of those particular minerals need stimulating. Of course it is difficult to give an exact measure because the requirements of 1918 are not the requirements of 1917. I can only speak definitely, of course, regarding last year. Taking the records of last year and expressing the production in terms of consumption, I find the figures somewhat as follows:

In the case of antimony we produced from domestic ores only about 10 per cent of what we needed, so I would put antimony at 10.

In the case of arsenic the corresponding figure would be 60; we came nearer our requirements with that.

In the case of bromine we have apparently met requirements, and we can express the production as 100 per cent there. We know the governmnet requirements for military purposes promise to be several times this year what they were last year, so we must not let this figure of 100 per cent please us too much because there is the probability that we are facing a deficit in the production of bromine.

Our production of 42,000 tons of chromium last year met about 37 per cent of the requirements. We hope to increase that production this year to about 50,000 tons.

In the matter of the abrasives, corundum and emery, the requirements were more nearly met last year, say, 90 per cent, and yet that 10 per cent that was lacking was of the highest grade of abrasive of emery which has hitherto been imported from Turkey and the deficit was a serious one because it was the grade of emery that is especially needed in the manufacture of optical glass.

In the matter of graphite the domestic supply furnished 25 per cent of our consumption, but there again is the graphite which we especially need in connection with the expansion of our metal industry, namely, the graphite that is used in the making of crucibles, our American product last year was only about 11 per cent of the crucible grade of graphite. There is where we hope to stimulate production in the southeastern states.

I have already mentioned magnesite, where our home production was about 99 per cent; and manganese was about 23 per cent. I may mention in this connection the record that we have made in the matter of magnesium, the metal. Formerly there was no production in this country of magnesium, and the supply from abroad being cut off a supply has been developed in this country, and the 1917 figures are very satisfactory, 115,800 tons of this metal, a very light metal and that means considerable quantity, and with the increased production there has been a corresponding decrease of the price, from something like $5 a pound to $2 or less a pound.

Molybdenum, another steel hardening metal; our production can be stated at something over 100 in that, because we export molybdenum, largely because that is a steel hardening metal more in favor with the English and the French than it is with our own steel makers.

In the matter of mercury we have increased our production until we are exporting it, and the corresponding figure indicates that our productive capacity is 120.

In the platinum metals I would say to Mr. Taylor that while the precious metals are not included in this bill, something more precious than the precious metals is included, namely, that platinum metals, and, as Secretary Lane stated, there is where we find a real deficit. Our own home supply last year was only about 13 per cent of platinum and the allied metals.

In the matter of pyrite last year our home production was 33 per cent; potash, as I have already stated, 10 per cent.

In the case of sulphur, which to some degree supplements the pyrite, although the two are not of course absolutely interchangeable. In the manufacture of sulphuric acid we are self-sufficient, to use Secretary Lane's expression; 105 is the figure for sulphur.

In tin, on the other hand, we produced only 1½ per cent of our requirements, mostly coming from Alaska, as stated by Secretary Lane.

In tungsten our production was 65 per cent.

As to vanadium it is hard to give a figure because there again we are not large users, but I think we can safely say that we produce more than we consume.

Mica I omitted to mention, and mica is a mineral which is used especially in connection with electrical apparatus. Our production was 38 per cent of the consumption, but there again I must qualify the statement because there are certain grades of mica that are especially adapted for special uses that come almost wholly from outside the country.

The Chairman. Where do we get that?

Mr. Smith. Some from Canada and some from India.

That in a general way expresses the list of deficiencies which you will notice is almost exactly the list which you have incorporated either in this draft of the bill or some additional minerals mentioned by Secretary Lane in his report.

Mr. Smith. Of course there have been springing up certain infant industries and I think the real reason for the legislation that is proposed comes from the fact that these infant industries are to a very large extent orphan industries. They are under the care of no part of the governmental organization as now constituted and while in the Interior Department we have been rendering as much aid as we could to these infant industries, our endeavor has not been altogether satisfactory because there are too many things that we saw ought to be done that we could not do. I do not think I am straining the figure I have used of infant industries or orphan industries when I say we have been called upon to play the part of nurse even to the extent, Mr. Chairman, of receiving a telegram at 2 o'clock in the morning from an manganese operator asking that the embargo be lifted on his ore; and we have acted as a go-between by reason of being in touch with these operators, from the fact that we get our statistics from them and are in correspondence with them, and they have appealed to us for cars, for the lifting of the embargo, for securing of coal supply, for helping them out in their labor problems, and of course all we could do would be to act for them just as a Congressman would act and run errands by taking their requests over to the Railroad Administration or the Fuel Administration, or the Car Service Committee, or the Department of Labor, and being a friend here in Washington. It has been satisfactory in that we have received the thanks of the men that we have tried to help, but there has been all the time apparent the lack of organization to do this work effectively and we have felt the responsibility without having the authority.

Mr. London. The situation seems to be that large capital has not attempted to organize the small industries, because there is no profit.

Mr. Smith. It is not a wholesale business. That may be a fair statement of it.

Mr. London. And now the aid of the Government is to be invoked to encourage men of small means to undertake the development of these industries. Is that the idea of the bill?

Mr. Smith. It seems to me that they need to have some assurance as to the future.

Mr. Garland. Not necessarily the men of small means.

Mr. Smith. Men of large means or corporations with considerable capital, before undertaking the development of large mining property, whether it be manganese in Montana, or copper, which people are developing, or pyrites, or the fertilizer interests, or any of these other properties they need to know that they are going to have a market at a living price next year as well as next month and they need a certain amount of stabilizing.

Mr. London. So that they would not take any chances with their capital.

Mr. Smith. I think they want at least an even break in developing the enterprise. You gentlemen of this committee know that there are in the mining industry, especially, enough natural hazards, and it seems to me that this bill is not simply to try to obviate some of those natural hazards but to prevent the injection of man-made risks, and part of that may be secured through assuring the developer of a new property that he is going to have the opportunity to sell his product at a price that may not yield a big profit but that will not incur a sheer loss.

Mr. White. The act terminates as soon as the President determines when the war ceases, but the contracts under the bill may extend for two years from the date of the contracts, guaranteeing the price for that time. Where the act may end, the contracts under it may run for two years from the time they were made.

Mr. Sanders. What protection will these industries have after the close of the war?

Mr. Smith. In many cases I think such a contract guaranteeing what will be essentially a minimum price would be sufficient to encourage a certain amount of development. I do not think the mining man wants to know that he is going to be able to mine his product at a profit for all time, because in many of these deposits there is a limit to the life of the deposit by reason of its size; but he does want to know that the rules of the game are not going to be changed on him just as soon as he is really involved in the development of his plant.

Mr. Sanders. Do you think at the end of two years from that time it would be self-sustaining without any legislation of any kind?

Mr. Smith. I really believe some of these industries might be considered as self-sustaining at the present time without such a guarantee. I think in a general way that those who it tends to help will be self-sustaining. I do not understand that the purpose of this bill is to insure production through all time at a loss to the consumer.

The Chairman. Nor is it intended in this bill as you state, that all the metals enumerated are to be guaranteed a price, but there may be some metal production of which it may be essential to stimulate, and in those cases it might be necessary that the Government should say, "We will pay a certain price for these metals for a certain time, in order to increase the output."

Mr. Sanders. If at the end of two years, and after the war, it should be found out by Congress that they really needed further assistance it might be obtained from some other sort of legislation.

The Chairman. That is possible, but not contemplated.

Mr. Garland. It provides in this section that the President might proclaim an extra import duty. This bill is simply to do what the Republican protective tariff bill has been doing, taking care of infant industries.

Mr. London. Do you want to condemn the bill in advance?

Mr. Garland. I would not condemn the

bill because some capitalist would engage in the making of this effort.

Mr. Smith. I think in the same section to which you refer is another purpose that should not be overlooked, and that is the need of protecting the consumer as well as protecting the producer. In many of these enumerated minerals there are those in which under the best circumstances the quantity which will be found available will not be sufficient to meet every demand, and, whether this quantity of domestic production applies to what may be possible under present conditions or future conditions, the import of that quantity will not be sufficient. Then it is a matter of national concern that the supply should not be monopolized by one consumer, or by a small group of consumers. It is just as important that the brass manufacturers get graphite for crucibles as for the steel manufacturers, and so you will find on page 15 reference to the necessity of regulating the distribution of some of these articles. The need of that is self evident. I simply call your attention to the fact that the user is protected as well as the producer.

Mr. Taylor. This bill appropriates $50,000,000 to carry out its provisions and $1,000,000 to be available within the first year?

Mr. Smith. Mr. Taylor, that is an important part of the bill, doubtless, but it is not a matter that I have given attenion to.

Mr. Taylor. What does it do in regard to the quantity of territory that a man can take in negotiations with the Government?

Mr. Smith. I do not understand that this is a public land measure at all.

Mr. Taylor. Supposing a man is going out to try to work up pyrite or tungsten, or sulphur, or molybdenum?

Mr. Smith. He would come under the mining laws, under the public domain.

Mr. Taylor. Does this affect the placer law?

Mr. Smith. I do not understand that it touches a man operating under that.

Mr. Taylor. Does it affect his getting tenancy of the land?

The Chairman. What is the license for?

Mr. Smith. Just the same you have licenses for the wholesale dealers of food products, or the licenses that are necessary in connection with the Fuel Administration.

Mr. Taylor. Who does it apply to, the fellow that is trying to produce something, or the broker who is dealing in it after it is done?

Mr. Smith. It is to promote production.

Mr. Taylor. Who is the man that it affects?

Mr. Smith. Every man that is trying to add to the material wealth of the nation.

Mr. London. The Government is not to be the sole purchaser of those products?

Mr. Smith. In many cases it may.

Mr. Garland. It may be the sole purchaser if it is necessary to fix the price.

Mr. Taylor. Who is to get this $50,000,000; who is it to go to?

The Chairman. You have got a certain amount of tungsten. The Government says, "We are going to commandeer all the tungsten you have and pay you a certain amount." If they bought you out they would take all the tungsten you have and pay for it.

Mr. Taylor. Can they not do that now?

The Chairman. They may commandeer it, but they cannot buy it in that way.

Mr. Taylor. They can commandeer anything they need.

The Chairman. They might be able to do so under the war power.

Mr. James. Are we producing enough copper and iron to satisfy our own needs and those of the Allies?

Mr. Smith. Yes, sir; of course barring such matters as car shortage and labor shortage and plant breakdown.

Mr. James. As far as production is concerned?

Mr. Smith. Barring anything that is unusual. Of course we have had trouble, but not because the copper was not in the ground, but because the mines were not very fully equipped to mine the copper, and in some cases because the pig copper was not on the cars coming to the eastern seaboard because there was a traffic shortage.

Mr. James. Would that prevent this oil from being held by corporations and prevent others from being robbed?

Mr. Smith. That would be possible but I think that under the provisions of Section 14 there is sufficient to prevent one man getting more than his proportionate part of an article of which there is a limited supply. When I say more than his proportionate part, I mean in comparison with his needs. He may be using that article in the manufacture of munitions of war.

Mr. James. It would prevent a certain number of men getting control of the prior right and getting any price they want?

Mr. Smith. It would prevent them getting control of the market on an article on which there is a shortage.

Mr. Hamlin. It could only be prevented under the bill by the Government buying all the stuff.

Mr. Smith. In some cases, if the Government fixes the price, it might fix it through purchase. The bill gives power to establish rules for distribution, which is equally important with the fixing of the price.

Mr. Garland. They have done the same thing in the case of coal and other articles.

Mr. London. Is there a government agency or any scientific body which makes it its business to ascertain what is the latent mineral wealth of the country?

Mr. Smith. The Geological Survey has considered that it has Congressional authorization for investigating the mineral resources of the country, and make what might be called an inventory of the undeveloped resources, and that is issued under the title of Mineral Resources of the United States, and discussing the latent wealth as well as developed wealth.

Mr. London. What systematic effort is being made to ascertain that latent wealth? Are the various sections of the country studied with reference to the latent mineral wealth?

Mr. Smith. That is the province of the Geologic mapping of the United States, which has been carried on since our survey began, and even before by other surveys, to determine what there is. Sometimes we have mapped rock bodies that had no value at the time they were mapped, but later were found to have such value, and that work is going on. Of course, under the existing war conditions, we are putting all our efforts on the ores and on these particular metals and these particular mineral substances that are especially needed now, and we have been hunting for platinum and manganese ores, and trying to estimate what there is available.

While we can make estimates that have a certain degree of quantative accuracy with regard to the coal deposits of the country and give you a statement in millions of tons, and we can do somewhat similar work in connection with iron ores, and in less degree with the petroleum deposits, we cannot do that with regard to the deposits of ores, such as zinc, lead and copper, because you must realize it is not only a question of what is in the ground, but what grade of ore can be made available 10 years or 20 years from now. All the time, through the metallurgical advance which is being made, it is possible to get copper from a grade of rock which is lower and lower all the time.

Mr. Hamlin. Coming back to that price fixing proposiion, which I regard as rather important, I beg to call your attention to this statement on page 14 of the bill. "Thereupon the Government of the United States hereby guarantees every producer of these specific necessaries that, upon compliance by him with the regulations prescribed, he shall receive for any necessaries produced in reliance upon this guaranty within the period, not exceeding two years, prescribed in the notice, a price not less than the guaranteed price therefor as fixed pursuant to this section." That is clearly fixing a minimum.

Mr. Smith. That is what is considered the minimum.

Mr. Hamlin. Unquestionably he may get more for it if he can, but that is the minimum.

Now, on page 15, where it gives the President the right to buy stuff in order to hold down the price, it is limited by this provision, undoubtedly, in the first part of the section to the minimum price. The question in my mind was what price would he pay them, unless he simply invoked the power of the Government to commandeer the stuff.

Mr. Smith. The difference on the face of it is the distinction between the ordinary guarantee as in the first part of the section and then the extraordinary action where the President regards it as necessary for the effective prosecution of the war, in the case for instance, of platinum, can fix absolutely the price.

Mr. Hamlin. That is what I doubt, under the wording of the bill. Of course, he can commandeer it whether this bill is passed or not.

Mr. Strong. There is a provision on page 14 that they shall guarantee a minimum price to encourage production, that is, a minimum price for any amount that may be produced, whether it is done to fill government needs or not. Then is not the provision on page 15 to protect the United States Government? They have to pay the minimum price and see that the producer gets it, and that provision is that they may purchase any of these necessaries and resell them or do anything else they want.

Mr. Smith. As an illustration of that, if this country was in the situation that Germany is in, we would want to develop some of the nickle deposits we have, and that would be done by fixing the price and it would be large enough to develop those deposits that under present prices cannot be developed.

Mr. Hamlin. I had in mind the recent experience we had in fixing the price of wheat. We fixed a minimum price of wheat last summer, and I remember very distinctly that Mr. Hoover stated at a meeting where I was present that that was a minimum price. His way of holding down the maximum price was to let the government be the sole purchaser, if necessary, of all the wheat produced.

Mr. London. The largest purchaser?

Mr. Hamlin. The sole purchaser, if necessary. Is not that the only way under this bill that that can be done. It seems to me that we must not get the idea that this bill gives the government the right to step in and buy at this minimum price, unless you so specify in the bill.

Mr. Smith. I think under this provision on page 15 the President could order the buying.

Mr. Hamlin. It gives him the right to do that, but the price is not fixed.

Mr. Smith. He is authorized and empowdered to fix the price. It seems to me that the need of action along some lines should be just as apparent to us here in Washington as it is, for instance, to the miners out in Arkansas. An appeal was successfully made to the manganese miners in one place in Arkansas to speed up their production, and they agreed to a 10-hour day in order that that district might put out a larger tonnage of manganese ore.

Harry L. Day, of Wallace, Idaho, when he appeared before the committee expressed the opinion that better methods could be used to stabalize values and stimulate production than those provided for in the bill. He emphasized the fact that he had no objection whatever to the provisions looking to the prevention of hoarding and of combinations. He also has no objection to the regulation of distribution as called for in the measure. "A tremendous power is given to an unknown individual in the background," Mr. Day pointed out in voicing his determined objection to the provision regarding the taking over of idle or inefficiently operated mines. Such power, he said, was dangerous.

The fact that the major metals are not enumerated in the bill would not prevent everything in the metallic line coming under the bill as the wording stood at the time of his testimony. He suggested that the language be changed so that the bill would confer only such powers as it pretends to confer.

Mr. Day predicted that Idaho and western Montana could be made to produce the antimony requirements of the country if government contracts were available.

Van H. Manning, director of the Bureau of Mines, contributed the following to the information furnished the Committee:

Minerals furnish the most important materials for munitions. The importance of the following mienrals is far greater than either their tonnage or value would indicate. The two fundamental materials for the production of all modern high-power explosives are nitrate, chiefly as nitric acid, and concentrated sulphuric acid made from pyrite or sulphur. Manganese is the most essential alloy for high grade steel for munitions and important industrial uses. Flake graphite is used for crucibles required in the production of brass and crucible steel. Tin is required for tin plate for utensils and cans for preserving food and for bearing metal. Mercury is used as fulminate to explode cartridges and shells, and is essential for the safe and effective use of all high explosives. Potash is used chiefly for fertilizers with smaller amounts for explosives, soap, glass, and chemicals. Tungsten is an essential alloy for high-speed tool steel. Antimony is required for hardening lead for bullets Chromite is used to make an alloy for tool steel and as a refractory lining in basic open-hearth steel furnaces. Magnesite is used as a refractory in metallurgical plants. Mica is indispensable as an insulating material in the manufacture of electric apparatus.

Many of the minerals referred to in the bill have been largely imported. Dependence upon foreign sources for mineral supplies may involve the diversion from military service of ship tonnage for the actual import of the minerals themselves; for the movement of fuel, equipment, and supplies to the foreign mines producing these minerals; for the possible transportation of other products which the nations upon whom we depend may exact from us in return for their essential minerals. In view of the uncertainty of such supply, as well as the shipping involved, it is essential that domestic production be stimulated to the utmost.

At the present time every ship that can be spared is needed to extend our military operations. The minerals imported come from many distant sources involving long voyages and delays in loading. The minerals mentioned represent an import of about 2,000,000 long tons per year, three-fourths of which at least can be eliminated in case of extreme necessity. Every additional day spent in the submarine zone is dangerous. In addition to the sacrifice of ships, the importation of bulky minerals congests our ports and exhausts our credit in the purchase of supplies abroad.

We have increased our production very slowly, due to many factors which can and must be remedied. Uncertainty as to the length of the war, fear that sudden return of peace will close down the new mines, no effective guarantee of prices for a reasonable time, and difficulty as to securing labor, fuel, and supplies, have discouraged the producer.

The consumer has not realized that new mine production is usually a matter of at least six months' time; he has depended upon the Government to take care of his needs; he has hesitated to use new materials; his efforts have been largely bent towards urging the necessity of import, without realizing the seriousness of the shipping situation.

If this country is to be assured of an adequate supply of minerals for any possible contingency of war, constructive stimulation of production must be undertaken without delay. This should include not only imported minerals which we can largely produce at home, but in addition, those minerals which we now produce at home but whose production may have to be increased as our military requirements expand.

Antimony.—Antimony is used as an alloy of lead to harden bullets for small arms and shrapnel, as an alloy in type metal for printing, and in bearing metals used to lessen friction. About 23,000 long tons of metal were required in 1917. Over 21,000 tons were imported, two-thirds of which came from China and the rest from Bolivia and Mexico. The principal domestic sources of ore containing antimony are in Nevada, California, Idaho, Washington and Alaska.

Arsenic.—The most important uses of arsenic are for insecticides and wood-killing compounds, disinfecting, vermin poison, and in glass making. The 1917 requirements was about 10,000 short tons, 40 per cent of which was imported from Mexico and Canada. The United States production comes almost entirely a by-product from smelters.

Bismuth.—The various salts of bismuth are largely used in medicine, particularly for the dressing of wounds, and a small amount is used in type metal. The total amount used is small. Under normal conditions about 100 short tons were imported, but this import has greatly declined since the war. The chief sources of domestic supply is from the electrolytic refining of lead bullion and flue dust.

Bromine.—Bromine is important because of its uses in medicine, chemicals and war gases. The total quantity used is relatively small. The United States production in 1917 was 450 tons. It is produced in connection with the manufacture of salt from natural brines from Michigan, Ohio, and West Virginia.

Chromite.—Chromite is used as the alloy ferro-chromium in the manufacture of special steels for high-speed tools, of automobile axles and springs, locomotive frames and springs, certain parts of ore crushing apparatus, in projectiles, armor plate and cannon linings It is also used as a refractory lining for metallurgical furnaces, and its various salts are used in special leather tanning processes and for chemical colors and dyes. In 1917 the domestic production is estimated at about 42,000 long tons and the import at 72,000 long tons, making a total supply of 114,000 long tons, which is a falling off of about 50,000 tons as compared with 1916. The import comes principally from Rhodesia and New Caledonia. The domestic production has come principally from California and Oregon.

Corundum and Emery.—Corundum and emery are the two most important natural abrasives which have been imported. They are necessary for the grinding of optical glass and special grades of steel for munitions. The best grade of imported emery comes from Greece (Naxos), and corundum from India and Canada. New York is the principal source of domestic emery, and North Carolina of corundum. The production in 1917 was 16,000 short tons and the imports about 2,000 tons.

Graphite.—Graphite is an important war material because of its use in the manufacture of crucibles required in the production of brass, bronze, crucible steel, and various other alloys and metals. Only the flake form is used for this purpose. The amorphous form is less important and is used for foundry facings, paint, lubricants, and lead pencils. In 1917 the domestic production was approximately 3,400 tons of flake graphite and the foreign import about 27,500 tons, making a total supply of about 31,000 tons. The import comes chiefly from Ceylon and Madagascar, the domestic production from Alabama, Pennsylvania, and New York.

Iridium.—Iridium is a metal closely associated with platinum and is used as an alloy to harden platinum for use in contact points for magnetos. The quantity used is very small, but is absolutely essential. Shortage of this metal would be even more serious than a shortage of platinum.

Magnesite.—Magnesite when calcined at high temperatures produces a very dense fire resistant and chemically inactive substance. Its use is chiefly for refractory bricks, as linings for open-hearth steel furnaces, copper converters, reverberatories, electric and other furnaces. In 1913, 186,000 short tons of magnesite were imported, chiefly from Austria and a small domestic production came from California. New deposits were discovered in the State of Washington, and at the present time the product from California and Washington completely meets our requirements, about 310,000 short tons being produced in the United States in 1917.

Manganese.—Manganese is used as an alloy in the manufacture of the greater portion of our high grade steel. A very small quantity is used in dry batteries, glass manufacture and dyes. Manganese is the best known material to produce a dense homogeneous steel free from honey-combing and blow-holes. It is generally added in the form of an alloy of manganese and iron, the high grade material being known as ferro-manganese and the low grade material as spiegeleisen. At the present time, steel industry requirements are from 700,000 to 800,000 long tons per year of high grade ores, besides a large quantity of lower grade ores. In 1917 over 500,000 tons were imported from Brazil, 50,000 tons from India, and about 60,000 tons from the West Indies, and Central America. The domestic production of high grade ore was 114,000 tons. The principal producing districts for high grade ore are Montana, Arizona, California, Arkansas, Virginia, Georgia, Utah and Tennessee. Large quantities of low grade ore come from Minnesota, Colorado, New Mexico, New Jersey. There are many small scattered deposits and the possibilities for large increase in production are very good.

Mercury.—The most important use for mercury is in the manufacture of fulminate for use in caps to explode shells, cartridges, blasting charges, and mines. It is thus essential for the safe and effective use of high explosives for both war and peace purposes. Other uses are in paint to prevent the fouling of ship's bottoms, in the amalgamation process for the recovery of gold and silver, in drugs and for scientific apparatus. The consumption of mercury in the United States is now between a million and three-quarters and two million pounds. While there has been normally some import from Spain and Italy, the United States has also exported mercury. The principal mercury producers are California, Texas and Nevada. The domestic production in 1917 was 36,000 flasks, the imports 5,200 flasks and the exports 11,200 flasks (of 75 lbs. each).

Mica.—Sheet mica finds its most important use as an insulating material in the manufacture of electrical apparatus such as magnetos, spark plugs, electric light sockets, etc. It is also used in the condensers of nearly all wireless outfits. The total quantity used is from 1,000 to 2,000 tons. Imports come chiefly from India and Canada. The domestic production is largely from North Carolina and New Hampshire.

Molybdenum.—Molybedenum is used as an alloy of steel in the manufacture of high-speed tools, and for automobile parts. It serves many of the same purposes as tungsten and is used abroad more extensively than in this country. The total world output is only a few hundred tons, the United States being the largest producer with about 175 tons of molybdenum in 1917. There are numerous deposits in the western United States whose production could be considerably increased.

Osmium.—Osmium is one of the metals associated with platinum. At the present time it is little used, but may become important as a possible substitute for iridium as an alloy to harden platinum.

Platinum.—The importance of platinum lies in its use as a "contact" material necessary to promote certain chemical reactions in the manufacture of concentrated sulphuric acid and in the production of nitric acid from ammonia. Platinum is used for utensils in chemical laboratories, for contacts in electric apparatus, for jewelry and for dental work. For all these uses 120,000 ounces is normally required. The domestic production will supply only a few thousand ounces, coming from California and Oregon. The import has been obtained largely from Russia with a lesser amount from Colombia. Russia is now a very uncertain source and Colombia, while increasing, cannot meet the deficiency.

Potash.—Before the war we imported over a million tons per year of potash salts from Germany. Over 50 per cent of this material was used for fertilizer and the remainder was used for various chemicals concerned with the production of explosives, soaps, matches, glass, dyes and tanning. The import has, of course, been entirely cut off, except a small amount from India, and the domestic production in 1917 was only about 12 per cent of normal requirements. A large part of this production has come from old lake deposits in California and Nebraska, and as a by-product of recovery from cement plants. A great many new processes are being developed for the recovery of potash from alunite, feldspar, marl, and various organic waste materials such as molasses, wood ashes, and wool scourings.

Pyrite.—Pyrite is a mineral containing iron and sulphur. It is used chiefly in the manufacture of sulphuric acid. The pyrite when roasted produces a sulphur gas which by various chemical processes finally is manufactured into acid. In 1917 about a million and a half tons of pyrite were available for consumption, one-half of which came from Spain and the remainder from the United States and Canada. A decline in Spanish import has been replaced by an increased domestic production, an increased import from Canada, and a partial substitution of sulphur. The principal States producing pyrite are Virginia, California, and New York. New deposits of great promise are being developed in Georgia, Alabama, Missouri, and several other eastern states. A large amount of this material could be secured as a by-product from coal mines in the Middle West.

Sulphur.—Sulphur has several very important uses, particularly for the manufacture of sulphuric acid for munitions and fertilizers, in the production of wood-pulp, as a spray for fruit trees, vulcanizing rubber, and for many other essential chemical purposes. Sulphur has furnished material for an enormous expansion in the production of sulphuric acid for munitions. Formerly almost no sulphur was used for this purpose. The United States is at the present time the largest producer of sulphur in the world. The normal production before the war was about 300,000 long tons which has since increased several fold. A small import has come from Japan. The domestic production is principally from Louisiana and Texas.

Tin.—Tin is essential in the composition of bronze and for tin plate used in the manufacture of food containers and many utensils. There is practically no production of tin in the United States, although a very small amount comes from Alaska. The United States is importing about 70,000 short tons of tin per year, chiefly from the Straits settlements and Bolivia. An increased amount of tin ore is being imported from Bolivia for smelting in the United States. In addition to the supply of new tin a considerable quantity of this metal is recovered from scrap.

Tungsten.—Tungsten is one of the most important alloys for high-speed tool steel, and it is estimated that 99 per cent is so used. Tools made from tungsten steel retain their cutting edge much longer and hold their temper at greater heats and therefore permit much more rapid and continuous operation. Small quantities of tungsten are used in electric light filaments and in electric contacts. The supply of 60 per cent concentrates is between 8,000 and 9,000 tons, about half of which is imported and the other half produced in the United States. The larger part of the import comes from South America. The domestic production is chiefly from California and Colorado. Smaller amounts comes from other western states.

Uranium and Vanadium.—Vanadium is an important alloy used in tool steels and in cast steel where special toughness is desired as in locomotive frames and parts of automobiles. The total amount of vanadium used in the United States is only a few thousand tons, largely imported from Peru. The United States has a considerable production from Colorado and Utah. If necessary much more could be produced from other western states.

Uranium has possibilities for use in tool steel, but thus far it has been little used. The United States has very large deposits in Colorado and Utah.

The opinion of the Committee on Mineral Imports and Exports with regard to the bill are set forth in the following:

The War Minerals Committee were among the first to perceive the necessity of some control of the production, importation, and distribution of ores and minerals in the United States during the war, and urged this matter upon the attention of the Government for a long time without commensurate result. Finding that the existing government machinery was not adequate to afford executive control of these matters, the Committee came to the conclusion that the war administration of ores and minerals and metals would be the best solution, this administration following the lines of the Food and the Fuel Administrations. Accordingly, they drafted a Bill, following the lines of the Food Administration, and giving the President full executive control of the production and distribution of ores, it being the assumption that this control would be delegated to a Metals Administrator. When the mining public was sounded as to their attitude on the question of a Metals Administrator, it was found that the industry was very much opposed, and this feeling was accentuated by popular criticism of the Fuel Administration which arose at about this time. It was pointed out that this Bill would put under the control of the Metals Administrator the gold, silver, copper, lead, zinc, iron, and other industries, which were getting along very well as they were, and that legislation in regard to them could do very little good, and might do a vast amount of harm if the Mineral Administrator or Dictator should not be an absolutely ideal selection. For this reason the mining committees, both in the Senate and the House, advised that they did not consider it advisable to introduce the Bill.

The matter, therefore, remained in abeyance until the Shipping Board took action to secure ships for military purposes by restricting imports of commodities, and for this purpose our Committee on Mineral Imports and Exports was organized in such a way as to represent the Shipping Board, the War Trade Board, and the War Industries Board. The members of the Committee are impressed with the idea that as the import of these essential commodities, such as manganese, chromite, and graphite, is restricted, immediate steps must be taken by the Government for stimulating and increasing domestic production, otherwise there would be a gap created which could not be filled, with consequent confusion in vital industries like the steel industry, which are absolutely necessary for carrying on the war, and a consequent failure of the shipping program, as put into effect by the recommendations of our Committee. We therefore strongly favor and do now most emphatically recognize the necessity of a strong Government cooperation for the purpose of stimulating the domestic production of those ores of which we are threatened with a shortage, mainly on account of artificially limited importations from overseas.

This contingency led the War Minerals Committee to the plan of reviving the question of a Mineral Administrator, who, however, should only have under his charge those ores and minerals of which we were thus threatened with a domestic shortage, and in accordance therewith the present Bill was drafted.

We may first reiterate that we were at first very much concerned over the fact that there appeared to be no government organization equipped and ready to take up the work of watching over and stimulating domestic production to take the place of our cuts in imports, which have been decided upon with the understanding that the increase of domestic production which appears feasible shall be brought about by Government assistance. It was evident that our Committee, primarily organized as a Committee of the Shipping Board, could not accept responsibility for any other field than that necessitated by the Shipping program, but it was equally clear that our actions must be accompanied by immediate complementary activities covering domestic production and distribution. The matter was solved by the War Industries Board agreeing to accept the responsibility for these domestic protecting measures. Final recommendations for restriction of imports, as they are now formulated, carry with them the approval of the War Industries Board, and are put into effect through the War Trade Board, which will issue licenses for import and export accordingly. These recommendations usually briefly outline the remedial domestic measures to be taken, but these suggestions are merely suggestive and gratuitous, and it is understood that this remains in the hands of the War Industries Board. This was a very satisfactory arrangement for us, since the shipping program was imperative and ships had to be taken at once for military purposes, with or without careful investigations, and therefore the Shipping program could not wait for further legislation. The function of our Committee was to see that this commandeering of ships was accomplished as equitably and with the least disturbance of vital interests as possible.

At the present moment, therefore, we are in a position to speak *ex parte* in the matter, as the program is already largely arranged for, and the work and responsibility distributed among existing and actually functioning government bodies.

Our first thought is that, in the interests of efficiency, an existing organization might do the work required, to obviate the loss of time which would be necessary to the building of a new organization, after the initial delay of proper discussion and legislative action. It is believed that the framers of the Bill in question also have this idea in mind and might subscribe to this, and insofar their present plan will differ from the original plan, which probably contemplated, a new administration. If so, the question resolves itself into strengthening the hands and enlarging the powers and resources of one of two existing Government bodies, the War Industries Board, or the Department of the Interior, with its United States Geological Survey and its Bureau of Mines. Should the Bill pass, the matter is left in the hands of the President as to whom he will delegate the authority conveyed to him, and he will use his own judgment in this; but if precedent in other decisions shall be followed, it is probable that he will not delegate his special war functions to the ordinary peace time Government organizations, and this will indicate the War Industries Board as the probable body which will be strengthened in order to carry out the work indicated more promptly and efficiently. Nevertheless the resources and powers of this Board are not sufficient. In any case a considerable extension and reorganization will be necessary for satisfactory operation of the functions contemplated in the Bill under consideration, and close cooperation with the Bureau of Mines, the U. S. Geological Survey, and other governmental agencies

As regards the scope of the Bill, the copy forwarded by you under date of February 22nd, covers "practically all ores and minerals except aluminum, gold, silver, steel and iron, copper, lead, zinc, coal and petroleum." Specifically it includes "all ores, minerals, intermediate metallurgical products, metals, alloys, and chemical compounds of antimony, arsenic, bismuth, bromine, chromium, corundum, emery graphite, iridium, magnesite, mangenese, mercury, mica, molybdenum, osmium, platinum, potash, pyrites, sulphur, tin, tungsten, uranium, vanadium and of other rare or unusual elements the supply of which may, in the judgment of the President, be inadequate for war and industrial needs." In the Bill as printed by the Committee of the House of Representatives, and dated March, 1918, however, the list of minerals is further limited as follows: "Antimony, arsenic, chromium, graphite magnesite, maganese, mercury, molybdenum, platinum, pyrite, tungsten, tin and sulphur alloys and chemicals derived from them."

Our comment on this list is that it is entirely inadequate and that any Mineral Administrator appointed over these commodities and not over equally essential commodities, would not at all remedy the existing necessity. The Bill is intended, as stated in its text, to provide for "encouraging the production, conserving the supply, and controlling the distribution of those ores, metals and minerals which have formerly been largely imported or of which there is or may be an inadequate supply." In other words, it covers particularly those mineral commodities the importation of which has been or will be restricted by our Committee. Now these commodities include part of the above list, but also include clay, asphalt, bauxite, salt gypsum, mica, asbestos, chalk, Fuller's earth, grinding pebbles and other mineral commodities which constitute scarcely less an important problem, from the standpoint of tonnage involved or of relation to essential industries, than the list given, and it is quite positive that the same government assistance must be given to the domestic stimulation and protection of these commodities as to those listed in the Bill. Furthermore, there are the minerals of maximum importance, such as iron and copper, which are imported to a considerable degree ,and although it may be inadvisable to put a Metals Administrator over them, it is equally necessary for these to be directed, distributed and protected, as in the case of the other commodities, and for the same reasons.

Our first comment, therefore, is that instead of the limited list of mineral commodities mentioned in the bill, any further control and organization by the Government should embody the possibility of including all the mineral commodities.

The next question is the amount of control which exists and the further functions which it is necessary for the Government to create and grant. The essential features of the bill are that the proposed further powers consist in punishing hoarding or combinations to restrict production, or exact excessive prices; that the manufacture, storage, mining, or distribution of any necessaries may be licensed in order to put them fully under control; that necessaries may be commandeered and purchased; that contracts for purchase by the Government may be entered into and commodities so purchased may be sold; that the Government may take over and operate any undeveloped or idle mineral land, deposit or deposits, mine, smelter or plant, to be restored to the owner at a subsequent time; that control be given of the market prices of necessaries, including the right to investigate private business accounts; that prices may be fixed by the Government, and producers guaranteed fixed prices for not more than two years; and that special import duties may be levied in order to protect these producers. Finally, the sum of $1,000,000 is appropriated for the period ending June 30, 1919, for the carrying out of this proposed administration, and the sum of $50,000,000 is appropriated as a fund for carrying out the provisions of the bill.

It will be seen that the required authority for regulating domestic production is quite fully covered in this bill, and in the hands of the ideal executor it will doubtless work out most satisfactorily. As there is always some question, however, as to the ideal personality, until this shall have been proved, the question arises whether it is not possible to increase existing authority and functions, up to the requisite limit, without going the entire length of the program. Apparently some closer study should be made of existing government functions to see whether some of these powers thus to be given to a new official do not already exist, scattered through different branches of the Government, and could not be exerted if it were manifestly advisable. The purchasing departments of the War and Navy, and the purchasing organization of the War Industries Board, apparently have it within their power, if they are so advised that it is essential, to contract at a fixed price for a government purchase of commodities over as long a period as will be desired. Purchases of platinum have already been made by the Government, and it would seem perfectly feasible, for example, for the Government to contract for a certain amount of chromite covering a period of two years. Through its close contact with the industries the War Industries Board could, perhaps, arrange for even larger financial operations by arranging with the different industries to immediately purchase commodities which the Government is contracting for at a fixed price. Financial assistance in opening up and operating mines is apparently contemplated in the proposed bill for a war finance corporation, which is being pushed by Secretary McAdoo and which apparently has a good chance of going into effect soon. In short, it is a question as to whether the existing functions of the Government working in harmony cannot accomplish most of the objects aimed at in the bill. The Shipping Board, the War Trade Board, the Food Administration, and the Fuel Administration, all have the powers which they can use to assist the organization directing the metal industry, and they will doubtless heartily cooperate to relieve any necessity. We repeat that a careful summary should be made of these existing government functions, and, it appears to us, that if there is any other necessary function which the organization controlling the encouragement of war metals should have, it should be arranged for at once.

We desire to point out, however, that all these functions enumerated in the bill would not, of themselves, furnish anything like a satisfactory solution to our problem of stimulating domestic production. We, of the Committee on Mineral Imports and Exports, by reason of our intensive study of different commodities and numerous representative trade conferences, which we have conducted in cooperation with the War Industries Board, know that the main problems to be met and overcome are those of labor and railroad transportation, and not those mentioned in the bill. These problems can only be solved by the method above indicated, namely, by cooperating with the Department of Labor and the Railroad Administration.

In short, it appears absolutely necessary to us that this problem of encouraging and assuming the responsibility for domestic production of necessary ores and minerals, should be delegated to one government organization, preferably one already existing, and presumably the War Industries Board; that this organization should complete its preparations and its system in order to carry out the responsibilities involved, and should take upon itself the responsibility of securing the cooperation and assistance of the other departments of the government, and the advantage of their peculiar powers as well as their information; that if it appears, upon test, that any essential powers or functions are lacking these should be secured as expeditiously as possible, but no unnecessary or arbitrary powers should be given without a careful survey and investigation; and that finally the range of mineral commodities involved should cover the whole field, metallic and non-metallic.

Some of the points brought out by J. F. Callbreath, Secretary of the American Mining Congress, are as follows:

I do not speak for the American Mining Congress because I do not feel authorized to speak for all its members. I will present only my own personal opinions and some letters which have been received from members which I believe will be helpful in the consideration of this subject.

I have been classed as an opponent of this legislation by some of those who are especially interested in it. I want to state that I am not an opponent of the purposes which are sought to be served by this bill.

Never in the history of this country has our form of government been under more severe trial than it is at this time. That a government, republican in form, shall be able, in times of great stress like the present, to exercise autocratic power so that it may carry out its purposes as a unit, to change from a democracy to an autocracy, puts a severe strain on our government. It would be farthest from me to oppose any plan which would give to our national government the power to coordinate every possible force in the carrying out of its great purposes.

The purpose of this legislation as I understand it is to secure a supply of maganese, pyrites chrome and other rare minerals of which there is a shortage and of which we have been obtaining our supply in foreign countries. Primarily, it is to release the shipping now engaged in the importation of these minerals so that these ships may be utilized in carrying soldiers and necessary food, equipment and supplies to the other side for our men and for our allies.

The only question is my mind is whether it is necessary to create another new organization in order to accomplish this purpose. If we are to create or give additional power for the purpose of stimulating the production of these minerals we should not authorize the creation of a new agency to serve a single purpose but rather keep in the same channel of development which has been pursued because I believe that agency will give the best results. I refer particularly to the Interior Department.

With you, I believe in casting all other things aside to meet the present emergency, but if in meeting that emergency we can also provide for the future, that we should follow that line. There is but one thing that stimulates production in a business way and that is price. We must provide a profit for the man who goes into a new enterprise made necessary by the disturbance of the business machinery of the world. The men who put up plants under present conditions, when the cost is twice as much as in ordinary times, must be permitted to amortize that increased cost during the time when the high price is available. They must be permitted also to charge back the regular depreciation of that plant. If a plant is to cost $200,000 today which three years from now could be constructed for $100,000, then that man must be permitted to amortize $100,000 of this increased cost plus the ordinary depreciation of his plant during those three years.

I believe that a simple agency authorized to contract for the production of this ore for sufficient time to permit this amortization will accomplish the purpose which you have in mind. I fear that the creation of a new agency outside of the Interior Department, which directs the work which is now being carried on by the Geological Survey and the Bureau of Mines, would interfere with these already created agencies in such a way as to hamper their future usefulness.

Mr Hamlin. Do you have any reason to think that the President would not administer the law through the Interior Department?

Mr. Callbreath. The Interior Department has been charged with the responsibility of general supervision of the coal industry of the country. The Secretary of the Interior did undertake to meet the coal situation but the responsibility was immediately shifted and we have had a coal famine which all of those gentlemen who thought out the situation predicted before it happened. The Fuel Administration was appointed to insure a supply of coal for a country which has the facility for producing 50 per cent more coal than it can possibly consume. Interference with the price, the only incentive which ever in the history of the world has brought up production, created a coal famine which has cost this country millions of dollars, caused suffering and want, and interferred more in our struggle and effort to prepare to meet the enemy upon the fields of France than any one thing which has occurred.

This statement is made in reply to the suggestion that this new mineral control would naturally be placed in the Department of the Interior where I feel it should be placed. That would have been the natural place for a coal administration to go. The Secretary of the Interior in conjunction with one of the most capable coal men in the United States forced a maximum price which would have allowed all of the coal mines of the country to operate. A $2 price was urged by people who thought they knew more about coal than Mr. Peabody and Mr. Lane. The $2 price would permit two-thirds of the mines of the country to operate at a profit; the other one-third could not operate profitably at that price and the result was a coal shortage. It was argued that because coal had been sold for an average of $1.11 per ton for five years prior, that $2 per ton was an enormous price and that the men who asked more than $2 per ton were profiteering. The effect, as we now know, was that many mines at the increased cost of production could not operate at that price. If the $3 price had been allowed to remain and if the men who understand the coal industry had been allowed to control, I do not believe there would have been any substantial coal shortage and there certainly would have been no coal famine. I mention this because I believe it is important that this bill shall use agencies which understand the business.

I would favor such price as would cover the amortization of the difference between the present and future costs of construction, the ordinary depreciation on the plant and give a fair profit. If a minimum price were to be fixed, I should fix it high enough to permit the operation of the most expensively operated mine and if too large profit were made by the cheaper operations I would reach out through the Excess Profits Tax Law and take back the excess profit.

The Chairman. You think it is a good thing for the government to buy at a big price and then take it back through the Excess Profits Tax?

Mr. Callbreath. I think it is a good thing to get the result. I think it was Mr. Farrell who stated before the Committee on Raw Materials of the War Trade Board that $500 manganese which you have will make muca better steel than $100 manganese which you have not. We need the ships which are supplying ore to the steel industry and we must pay whatever price is necessary to get the manganese in order to withdraw these ships and still keep the steel industry in operation. To simply fix a minimum price and give no guarantee that that price will remain is absolutely without avail.

The Chairman. How long do you think the contract price ought to remain?

Mr. Callbreath. Long enough to guarantee a reasonable profit on the investment. If too much money is made take it back under the Excess Profits Tax Law. I would give the Government power to make contracts for the production of this ore, with additional power by a tariff on foreign importations to protect its interests in case it has money invested in the War Industries Board could, perhaps

The good of the people at home also requires that you frame legislation which will be effective after the war is over. We are fighting in this war for one blessing to be added to all the other blessings which we enjoy. What will democracy in the world be worth to a starving people? What is liberty of the seas to a man who is lacking the essentials of life? We should create machinery that will provide all of these other necessities and thus enable us to fight the better, the stronger and the harder for the one luxury of liberty for which we are now fighting.

BONNER IS PUTTING THINGS OVER FOR STEEL INDUSTRY

Harris & Ewing

J. B. BONNER

The history of the present war will not be written accurately unless the part James B. Bonner is playing in it has been duly recorded. That, briefly, sums up official Washington's view of the man in whom the iron and steel industry today has its closest contact with the government's. war machine And the officials in Washington who express this view, naval and army officers alike, mean to see that Mr. Bonner's services are recognized as soon as the war is over.

Mr. Bonner is vice chairman of the American Iron and Steel Institute's subcommittee on steel distribution, with headquarters in Washington. In private life he is the Philadelphia district sales manager of the United States Steel Corporation. Since he has taken up this part of the Institute's work, steel men have come in contact with him as they never had before. And almost every one of them has praise for Mr. Bonner, whose staff in Washington, originally three or four, has been expanded to meet the war requirements and now numbers more than two dozen.

"Ask Bonner."

This phrase, used in connection with steel matters, is more universally employed in the national capital than any other. If the navy department wants to know when to look for deliveries on boiler tubes, they ask Bonner. If the army wants to know where to get projectile steel, they ask Bonner. If the shipping board is hunting for ship plates, they ask Bonner So it is all along the line.

Everywhere in Washington it is a known fact that Mr. Bonner has done more for the government than any other steel man. This continual reference to him, even with the government's own steel division at their beck and call, is not confined to junior army and navy officers. Rear admirals, interested in the naval program, ask his advice. Major generals, deeply concerned in rushing steel "over there," seek him out. Even Secretary Daniels himself is known to have contributed to the praise of Mr. Bonner's work. Many have expressed their opinions privately and are only waiting opportunity to do so publicly. A look at the pictures on the wall in Mr. Bonner's private office gives some idea of the men who hold him in high esteem. Among them are Admiral Benson, General Goethals, Admiral Taylor Secretary Daniels.

Mr. Bonner's standing with these men has not grown up with the war. His intimate knowledge of government requirements has come through at least fifteen years of close contact with various government officers and the army and navy specifications, their regulations and the laws affecting government purchases.

More Assistants Appointed

Appointment of three assistant district representatives whose official duties will include work in Maryland, West Virginia, and Pennsylvania, has been announced. The appointments are: J. Howard Magee, Cumberland, Md., who will act as assistant district representative of the Fuel Administration in the coal fields of Maryland; D. M. Carl, Cumberland, assistant district representative for operations in Maryland, and in Mineral, Grant and Tucker counties, W. Va.; and J. M Cover, Cumberland, for operations in Somerset county, Pa., on or tributary to the Baltimore & Ohio and Western Maryland railroads, and in the Indian Valley districts in Fayette and Westmoreland counties, Pennsylvania.

Requests for coal from state administrators and requests and orders from the United States Fuel Administration in Washington are to be sent as usual to District Representative John C. Brydon, and not directly to the assistant district representatives.

Michigan Representative Named

Arthur Fancher has been appointed District Representative of the United States Fuel Administration, and has been assigned to duties in the coal fields of Michigan. He is a resident of Bay City, Mich., and has been closely identified with the fuel situation in that state.

Mr. Fancher will cooperate with the operators, the railroads, and the public as the direct representative of the Fuel Administration.

SENATOR JONES DEFENDS THE FUEL ADMINISTRATION

Takes Exception to Many of the Statements Made and Conclusions Reached by Senator Lodge

A defense of the Fuel Administration was made on the floor of the Senate March 22 by Senator Jones of New Mexico.

Afer reviewing the coal situation which existed when H. A. Garfield was appointed by the President to the position of Fuel Administrator, Mr. Jones said:

"It was evident that many problems existed and that to solve them it would be necessary to bring into an organization men of experience, men from different branches of business activities and also those who were familiar with the economics of the trade and of distribution. The Senator from Massachusetts, Mr. Lodge, would have us believe that this was not done, and in expressing himself uses some very strong language. In one connection the Fuel Administration is referred to as a 'bureau largely composed of amateurs.' In another place the Senator says: 'Upon this conflicting and difficult situation the untried man known as the Fuel Administration was suddenly imposed.' In another connection he uses the phrase 'ill-considered and violent action of the Fuel Administration.'

"That these characterizations are unjustified will become apparent by reference to the personnel of the Fuel Administration. Owing to the fact that these attacks upon the Fuel Administration, and especially of the director, have a most deleterious tendency, I think it wise for us to have some rather extended information regarding this chief of a most important activity of our country in these perilous times. Our patriotic citizens are not willing to put responsible trust in irresponsible hands."

Senator Jones caused to be read into the record a brief summary of the business and professional experiences of Fuel Administrator Garfield, in part as follows:

"Mr. Garfield was admitted to the bar and began the practice of law in the city of Cleveland in June, 1888. His extensive business acquaintance brought him a large business practice in which he was associated with the most experienced and successful business men in Cleveland.

"His intimate knowledge of the coal business, through personal experience with that business, was acquired, as manager, with Calvary Morris, a successful and extensive coal operator, of who doubtless you have often heard as manager of the syndicate of Cleveland business men which undertook and carried to a successful conclusion the developent of large coal mines in the Piney Fork district of Ohio and connection of those operations by a railroad with a Lake Erie port. This syndicate was organized about February, 1901, and the development of its mining properties and of the railroad occupied Mr. Garfield's time and attention almost exclusively for nearly two years until a control of the completely developed properties was disposed of to the Lake Shore & Michigan Southern Railway. For some years thereafter Mr. Garfield remained, at the request of the purchaser, a director and vice-president of the mining company.

"Very shortly after the beginning of practice in Cleveland, Mr. Garfield undertook and carried to a successful consummation the construction of the Garfield Building at that time the largest and even today one of the largest office buildings in Cleveland. This building was constructed and owned by a corporation, among whose stockholders are some of the most successful business men of that city. Mr. Garfield had entire charge of the building contracts, the financing of the cost of the business, and the negotiations with tenants. From its completion to the present time the building has been a great success and Mr. Garfield is still one of the directors of the owning company. The building was constructed under a long-term ground-rent lease of land owned by John D. Rockfeller, with whom Mr. Garfield personally conducted all negotiations leading to the execution of the lease.

"Contemporaneously with the construction of the Garfield Building Mr. Garfield was actively interested in the organization of the Cleveland Trust Co. This trust company has been signally successful as one of the strongest and most ably managed financial institutions of Cleveland, and Mr. Garfield was one of its directors, its vice-president and counsel, as well as a member of its executive committee from the date of its organization until 1904, when he retired from practice.

"Mr. Garfield, in connection with some other Cleveland gentlemen, undertook the organization of the Conneaut Water Co., which at that time, was financially embarrassed, reorganized and refinanced it and developed it into a very successful company, which today and now for many years has furnished the city of Conneaut, Ohio, with an adequate and satisfactory water supply.

"From the time he began practice, Mr. Garfield had entire charge of a large estate. This estate included improved and unimproved real estate in the city of Cleveland, interests in various Lake Michigan iron mines, in a well-known Cleveland shipbuilding company, and other business activities.

"For several years Mr. Garfield was a member of the executive committee of the Cleveland Chamber of Commerce, was president of the chamber in 1898, and as chairman of its building committee conducted the construction of its present building.

"From 1897 to 1908 Mr. Garfield was chairman of the national committee on the reorganization of the Consular Service of the United States. This committee, as you doubtless know from your interest in business, was made up from representatives of the chambers of commerce and boards of trade of the twelve largest American cities, and conducted a various active campaign in efforts to improve our Consular Service and place it upon a basis where it could be more useful and helpful to American business interests. To this work Mr. Garfield devoted much time and attention, including frequent visits to Washington, until the successful accomplishment of its object in 1906.

"It would be difficult to suggest better qualifications for a Fuel Administrator than those possessed by Mr. Garfield. Here is a man of large general business experience and special experience in the coal industry, a splendid organizer, and no direct interest, in a large way, either as a producer or consumer.

"The Senator from Massachusetts reviews the coal situation as he sees it and says:

"'The Fuel Administration entered and proceeded to fix a price which made it impossible to work many mines.'

"The Senator also refers to this as 'reckless price fixing,' and as an undertaking to 'fix an abnormally low price for coal,' again he says:

"'Even if we admit that they kept prices down, which is purely guesswork, they brought a coal famine with its nominal fixed price.'

"These characterizations may be classed as 'important, if true.'

"Under the prices fixed by the President, as readjusted by the Fuel Administration, there was a steady increase in production each month over the corresponding month of the previous year until December, with its unprecedented weather conditions, was reached. But there was an arbitrary limit on the output of bituminous coal over which the Fuel Administration had no control, and which up to January of this year was not under the direct control of the Government. This limit was established by transportation conditions. Senator Lodge says that 'the mines could not work to capacity because they could not get cars.' The Fuel Administration was absolutely without authority over the railroads. All of its efforts to increase production were dependent upon the ability of the mines of the country to secure an adequate and continued supply of cars. So far as bituminous coal is concerned, that car supply has not been available at any time since the Fuel Administration was organized. The factors of labor supply and price inducement were comparatively negligible in controlling the output of bituminous coal, because at no time has either of these factors been allowed to operate without the limitation imposed by a shortage of cars.

"The economic pressure that might have been brought to bear by an industry driven to extremes under the pressure of an enormous demand, a short supply, and soaring prices, to secure transportation service that would have allowed an increase in the output, could have been no stronger than the economic pressure brought to bear by the unprecedented demand for coal at the price fixed by the Government and the willingness of the operators to furnish it. No matter how high the price might have gone through the unrestricted law of supply and demand, the limit on the output of bituminous coal must still have been reached when the limit of transportation service was reached. It is futile to speculate as to what steps might have been taken by the railroads to meet the demand, provided coal prices had been allowed to soar to $10, $20, or $30 per ton at the mouth of the mine. No amount of competitive economic pressure could have overcome the hard physical fact confronting the railroads of the country that their facilities were not adequate to care for the enormous increase in war traffic which was suddenly thrust upon them.

"The activities of the Fuel Administration from the very beginning have been directed toward supplying the extraordinary war demand for coal on the part of the Government itself and those branches of industry which the Government has called into war service. With the entire coal output inadequate to supply the demands of the country, it has been necessary, of course, to make readjustments to supply the war demand. Upward of 10,000,000 tons of coal probably have been furnished to the army, navy, and other government departments. Other millions of tons were essential to supply the increased and new demands of industries directly engaged in production for war purposes. In large measure these requirements have been met. Had these industries been left to the tender mercies of the relentless law of supply and demand and the usual avenues for distribution there would have indeed been chaos and confusion. The coal would have gone to the highest bidder, without any consideration of the necessities of the war. Any industry willing to pay the price would have obtained coal, regardless of the uses to which it might be put. The limited supply of coal for domestic consumption would have warmed the rich and left the poor to suffer and freeze.

"Let us consider briefly the order issued by the Fuel Administration on January 17. This is referred to by the Senator from Massachusetts as the 'reckless order closing down factories and industries of all sorts for five days.' To the mind of the Senator there was no excuse or reason for the issuance of this order, and it is simply characterized by the word 'reckless.'

"The Senator from Massachusetts refers to this action of the Fuel Administration as 'ill-considered and violent. He presents reports from two industries showing the value of fuel saved in tons and the value in dollars of the loss of wages, loss of production, and the loss to stockholders, and says that these two examples represent thousands of other industries throughout the country.

"What was it worth to bring to full capacity the manufacture of steel plates, projectile steel, and war munitions? What was it worth to bring to the shipyards ample supplies for the building of ships? What was it worth to increase the output of clothing for the armies in France and the armies assembled in the cantonments? What was it worth to say to the soldiers in France the first consideration at home is their welfare and their support? What was it worth to the mothers of our country to say to them that their boys, who are making the supreme sacrifice, shall be sustained? What was it worth to bring to the business interests of this country a keen realization of the actualities of war? What was it worth to say to France, Italy, Serbia, Belgium, and England that their sacrifices for the preservation of world civilization shall not be in vain? What was it worth to say to them that when we pledged the whole of our resources to the conduct of the war that we meant what we said? What was it worth to say to Imperial Germany that the whole of America is willing to stand at attention, cease ordinary industry, and in patriotic fervor watch the increasing glow of furnaces, listen to the ceaseless movement of trains, watch the departure of ships, all for the purpose of sustaining this war and convincing the imperialistic autocracy that civilization shall not be crushed and that democracy shall endure? A balance sheet showing only debits and credits in dollars is incomplete. There are some things which cannot be valued in dollars.

"After the effects of the order's operation in this country were known, a similar order was issued and made effective in Canada.

"The Directors of the Food and Fuel Administrations are men splendidly equipped, having both natural and acquired executive ability as administrators of high order, and were well chosen for their respective positions. The organizations have brought together a large number of expert business men who, through toil and study, have reached eminent positions in the respective lines of industry with which they are to deal. All are serving the country solely for patriotic reasons. There is no inducement of a pecuniary nature. The great majority receive no salaries and pay their living expenses. They are devoting their whole time to this service. They are even endangering their health. The problems confronting them are recognized as important and perplexing. Day after day, night after night, the combined wisdom and skill of these organizations is devoted to the solution of these problems, to meeting changed conditions, and if these problems can be dealt with so as to overcome the myriad difficulties presented and interfere with business as little as possible, these organizations will do it.

"The remedy therefore is, let these organizations alone. If they need more power, give it. Do not badger and heckle them. On the other hand, help and encourage them. Let us not say to the world that the affairs of our government at this time are in incompetent hands. To the contrary, let us tell the truth and say to the world that the resources of this country are being successfully mobilized for the purposes of the war. Let us encourage the toilers in the mines and fields and those engaged in the essential service of transportation. Let us encourage the women in the land who are striving and on whom we must depend to conserve food for ourselves and our allies. Let us assure business in general that we have not entered upon an era of willful destruction. Let us not say to the taxpayers that their contributions are supporting inefficiency. Let us say to all those who are making sacrifices in this emergency that their efforts are not in vain."

Prosecutions Begin

There have been 424 complaints received of violations of the orders promulgated by the Fuel Administration since its organization. This number does not include violations of order of January 17, 1918.

Criminal prosecutions were instituted in eighty-three cases. Two hundred and eighty-one violations are under investigation and pending; and eighteen have been dropped because investigation disclosed no violation.

In forty-two instances persons engaged in various branches of the coal trade were compelled by the Fuel Administration to refund sums aggregating $34,000 which had been improperly collected by them in the conduct of their business.

A systematic examination is being made by the legal department of all sales reports being filed with the Federal Trade Commission. Agents of the Department of Justice and of the Federal Trade Commission are supplementing this examination by investigations in the field.

Officials of the Fuel Administration believe that by these methods it will be able to obtain evidence of sales in excess of the government prices, and of violations of the regulations of the Fuel Administration. This evidence will be made the basis for prosecutions under the Lever Act in all cases in which such action is deemed advisable.

PLATINUM COMMANDEERED BY THE GOVERNMENT

Chemical Division of War Industries Board to Exercise Control over Much Needed Metal

The Government on March 1, took over control of the production, refining, distribution and use of crude and refined platinum for the period of the war. The control will be exercised through the Chemical Division of the War Industries Board. The Chemical Division sent out to the industry requests for inventories of the existing stock of crude and refined platinum, and platinum iridium alloys as of March 1.

The letter stated that it was not the intention of the Government to take over and handle directly the present stock of platinum, but to permit its shipment by the producers or dealers subject to certain conditions. Upon the fixing, by the Secretary of War, of a reasonable price for crude, refined, and alloyed platinum, notice will be given and blanks issued governing delivery and distribution.

The letter sent out by the Chemical Division includes the following directions to producers:

"1. That producers, refiners and dealers in platinum continue to dispose of their product for government purposes, and for that only as directed by the Chemical Division.

"2. That producers, refiners and dealers in platinum who are also consumers, use platinum for government purposes and for that only, as directed by the Chemical Division.

"3. That all obligations arising out of transactions in the production or delivery of crude, alloyed or refined platinum released as above, including all claims for shortage, poor quality, damage or loss in transit be borne by the producer or seller, as the case may be, in accordance with existing trade practices.

"Distribution may be made by consent of this board through agencies under existing arrangements, provided that there results no increase over the existing price to the user.

"The undersigned, on separate application in each case, will consider permitting the delivery of a limited amount of platinum for essential commercial purposes not for government account.

"Proper blanks upon which application for release of shipment should be made will be furnished on application.

"The following list indicates, in general, the order of preference which will be followed in releasing platinum for shipment:

"First, military needs of the United States Government.

"Second, military needs of Allied Governments.

"Third, essential commercial purposes."

The commandeering order does not apply to or interfere with the purchase by the consumer of any manufactured articles containing platinum.

New Mexico Prices

Classifications and prices at which coal may be sold at the mines in New Mexico have been announced by the United States Fuel Administration.

The order fixing the new scale is made effective as of April 1 and provides for summer reductions in the price of prepared sizes.

Coal mined in New Mexico may be sold at the mines at prices to not exceed the following:

Raton district—Run of mine, $2.35; prepared sizes, $3.25; slack or screenings, $1.65. (The former prices for this district were $2.75, $3.25 and $2.00 respectively.)

Gallup field—Run of mine, $3.05; prepared sizes, $4.05; slack or screenings, $2.00. (Former prices, $3.05, $4.50 and $2.00 respectively.)

Carthage field—Run of mine, $4.25; prepared sizes, $5.05; slack or screenings, $3.55. (Former prices, $4.05, $5.05 and $3.55 respectively.)

Cerillos field—Run of mine, $4.05; prepared sizes, $4.55; slack or screenings, $3.55. (Former prices for this field were same as those for the Carthage field.)

Sugarite and Monero fields—Rune of mine, $3.00; prepared sizes, $4.00; screenings, $2.00. (Former prices for these two fields were $3.00, $4.00 and $2.00 respectively.)

Summer reductions in price of prepared sizes are provided for as follows: April 1, fifty cent; May 1, forty cents; June 1, thirty cents; July 1, twenty cents, and August 1, ten cents.

Operators who have complied with the wage advance agreement may add forty-five cents per ton to the prices named in the order.

Not a Natural Gas Expert

The editor of the MINING CONGRESS JOURNAL has the following letter from Warren S. Blauvelt, who is in charge of coke matters for the Fuel Administration:

"I note in your March issue the statement crediting me with knowledge and experience in the natural gas field, which is entirely erroneous. I regret that such statement was made, and would be pleased to have you at least notify the people who made such a statement that the information is incorrect. Whether or not the matter is of enough importance or interest to require correction in your columns, is for you to determine."

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APRIL, 1918

COMMITTEE NAMED TO HANDLE DISTRIBUTION OF ANTHRACITE

The United States Fuel Administration has adopted a plan for the distribution of domestic anthracite coal from the mines to the retail dealers for the coming year. The details of this distribution will be supervised by J. B. Dickson, S. D. Warriner, and W. J. Richards, who have been appointed district representatives in the Pennsylvania anthracite producing fields for the U. S. Fuel Administration under the general direction of J. D. A. Morrow manager of distribution.

These district representatives, acting as a committee, will confer with the State Fuel Administrators as to the needs of the respective states, and will meet these requirements as fas as possible. The committee will always have at hand data showing the amount of coal that has been furnished to all communities in the past, and this data will be available to the State Fuel Administrators

Comprehensive figures have been compiled which show the tonnage by sizes sent into the various states during the coal year, April 1, 1916, to April 1, 1917, and during the coal year April 1, 1917, to date. The year 1916-17, the last normal year, will be used as a basis of distribution for the coming year beginning April 1. The tonnage shipped into each state has been subdivided into the amounts shipped into the various communities in each state, and the figures as to all communities will eventually be available. Prior to April 1 this information will be given to the State Fuel Administrators, who will advise various county and city chairmen. From them each dealer may learn the total tonnage than allotted, ample opportunity will be given for necessary adjustment. The figures, as above described, will be of assistance in the broad and equitable distribution of anthracite coal during the coming spring and summer months.

Retail dealers will place their orders in the regular way with the ordinary sources of supply which they patronized in the winter of 1916-17.

Because of the greatly increased needs of the territory adjacent to the Atlantic Seaboard, and the large increase there in population and industrial activity due to the war, and because of the transportation features involved, it may be necessary to reduce somewhat the normal tonnage to the West and Northwest. Except for such changes each operator will distribute his tonnage as during 1916-17. In case there is need of diversion from the normal lines, to meet changed conditions, such as providing for movement during open navigation, or in order that distribution may be more equitable, this will be done. The district representatives named above have the figures as to the tonnage sent into each state and community, and will notify the various State Fuel Administrators.

BREWERS AGREE TO CUT OUTPUT 30 PER CENT

The Fuel Administration recently proposed to the War Service Committee of the United States Brewers' Association, in the interest of promoting the conduct of war industries to the fullest possible extent, that the brewing industry submit to a reduction of the amount of their brewings during the period from April 1, 1918, to June 30, 1918, of 30 per cent of the amount brewed during the corresponding period of 1917, as shown by the monthly Internal Revenue reports.

The War Service Committee of the United States Brewers' Association, in a spirit of cooperation with the United States Fuel Administration, accepted this suggestion and decided that directions to carry out the foregoing reduction shall go forward promptly to all engaged in the industry.

ILLINOIS, PENNSYLVANIA AND WEST VIRGINIA PRICES REVISED

Reclassification of prices for the entire State of Illinois and reclassification for some of the largest coal fields in Ohio, Pennsylvania, Virginia and West Virginia, were announced today by the United States Fuel Administration as the reclassification in Illinois covers the whole State, comparison with former prices for any one district is impossible.

Maximum prices in the other States affected in the orders announced today are unchanged from those already in effect and are merely confirmatory of the mine prices in effect last season.

The maximum prices for the various fields are as follows: Ohio and West Virginia, number eight or Pittsburg seam, including Hancock, Brook, Ohio, and Marshall counties, West Virginia and Jefferson, Harrison, Belmont, Carroll and Monroe counties in the State of Ohio, run of mine, $2.00; prepared sizes, $2.25; slack or screenings, $1.75.

Pennsylvania—Pittsburg field including the counties of Washington, Green, Fayette, Westmoreland and Allegheny except (first) that portion of Allegheny County from the lower end of Tarentum Borough north to the county line; (second) the territory in Westmoreland County from a point opposite the lower end of Tarentum Borough north along the Allegheny River to the Kiskiminitas river and along the Kiskiminitas river eastward to the Conemaugh river to the county line of Cambrai county; (third) operations on Indian creek in Westmoreland county; (fourth) operations in the Ohio Pyle district of Fayette county. Run of mine, $2.; prepared sizes, $2.25; slack or screenings, $1.75.

Illinois District Number One.—Including Mercer, Bureau, Kankakee, La Salle, Grundy, Will, Putnam, Marshall, Livingston, Woodford, and McLean counties: Run of mine, $2.65; prepared sizes, $2.90; slack or screenings, $2.40.

District Number Two.—Including Rock Island, Henry, Warren, Knox, Stark, Peoria, Hancock, McDonough, Henderson, Fulton, Tazewell, and Schuyler counties: Run of mine, $2.40; prepared sizes, $2.60; slack or screenings, $2.10.

District Number Three.—Including Menard, Logan, Dewitt, Champaign, Vermillion, Sangamon, Macon, Pratt, Christian, Moultrie, Shelby, Green, Macoupin and Montgomery counties, and Madison county north of the latitude of Alton; also all mines included in other rulings: Run of mine $2.00; prepared sizes, $2.20; slack or screenings, $1.70.

District Number Four.—Including Bond, St. Clair, Monro, and Randolph counties, and Madison county south of the latitude of Alton and Clinton, Washington and Perry counties, not including mines along the line of the Illinois Central railroad between Vandalia and Carbondale: Run of mine, $2; prepared sizes, $2.20; slack or screenings, $1.70.

District Number Five—Including Jackson county, not including mines on the line of the Illinois Central railroad between Carbondale and Duquoin: Run of mine, $2.40; prepared sizes, $2.60; slack or screenings, $2.10.

Illinois, District Number Six.—Including Marion, Jefferson, Franklin, Williamson, Johnson, Hamilton, Saline, White, Gallatin, and mines along the main line of the Illinois Central railroad between Vandalia and Carbondale in Clinton, Washington, Perry, and Jackson counties: Run of mine, $2; prepared sizes, $2.20; slack or screenings, $1.70.

Virginia and West Virginia, Pocahontas District, operations on the Norfolk & Western railroad and branches west of Graham, Va., to Welch, West Virginia, including Newhall, Berwind, Cane Brake, Hartwell, and Beechwood branches, also operations on the Virginian railroad and branches, west of Rock to Herndon, West Virginia: Run of mine, $2; prepared sizes, $2.25; slack or screenings, $1.75.

Texas Lignite Prices Fixed

Maximum prices governing the sale of lignite coal in the mines of Texas have been announced by the United States Fuel Administration.

Texas lignite prices as fixed in an order of the Fuel Administration confirming the order of the Federal Fuel Administrator of Texas and made effective as of March 5, are as follows:

Run of mine, $1.40; screened lignite with at least 15 per cent of screenings taken out, $1.50; screenings, 85 cents.

Map Directories of West Virginia and Kentucky Coal Mines

What are regarded as especially complete map-directories of coal mines on the Chesapeake & Ohio, Norfolk & Western, Viriginian, Kanawha & Michigan and southern end of the Coal & Coke Railroads, have recently been completed under the direction of Mr. W. D. Roberts, Editor of the *West Virginia Mining News* at Charleston.

These map-directories show locations of mines, name of company and general manager, seam worked, analysis of coal, car allotment and selling agent. Altogether eleven districts have been mapped separately.

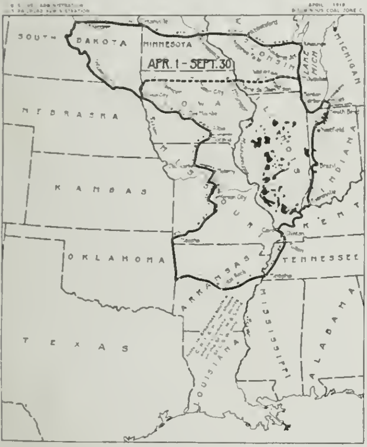
Hundreds of operators and other individuals interested in the fields in question have secured copies of these map-directories, it is pointed out, and only recently Mr. Edward Page, Vice-President of the New England Coal & Coke Company of Boston, which has extensive interests in some of the fields mapped, declared of the publications, "A very attractive and convenient way of handling these fields."

ZONING SYSTEM GOVERNS SOFT COAL DISTRIBUTION

To Prevent Waste of Transportation Facilities Coal Supplies Must be Obtained from Most Accessible Fields

The Fuel Administration, in cooperation with the Director General of Railroads, announced, on March 23, a zone system to govern the distribution of bituminous coal during the coal year beginning April 1, 1918, and made public this statement:

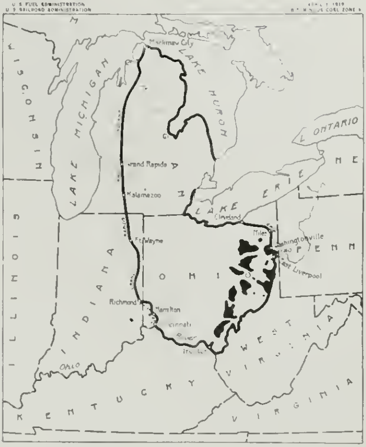
"Heretofore coal has been distributed practically without regard to the distance between the mine and the consumer. Under the zone system coal will be distributed to consuming territory under restrictions that will avoid, as far as possible, waste of transportation facilities, but nevertheless consistent with the maintenance of the greatest possible production and a proper coal supply to all coal users. Every effort has been made, however, to preserve long established trade relations.


SOUTH DAKOTA
MINNESOTA
APR. 1 - SEPT. 30
WISCONSIN
LAKE MICH
MICHIGAN
NEBRASKA
IOWA
KANSAS
MISSOURI
ILLINOIS
INDIANA
KENTUCKY
OKLAHOMA
ARKANSAS
TENNESSEE
TEXAS
LOUISIANA
MISSISSIPPI
ALABAMA

COAL ZONE C

"We must have adequate coal supply in order to win the war, for otherwise we cannot make munitions or other war supplies, or build ships or use them when built. Without adequate coal supply, industries will be stopped, labor will be idle, and homes will go unwarmed.

"In view of these necessities and of the serious danger of coal shortage the Fuel Administration and the Railroad Administration have devoted several months to the study of what can be done to remove the causes which have hampered the enlargement of coal production. It has been found that a factor which has largely diminished the number of cars available for loading in the mines and the number of locomotives available to haul coal, is that, in a substantial sense, the country has been engaged in 'carrying coals to Newcastle;' cars and locomotives have been occupied for many unnecessary days in hauling coal hundreds of unnecessary miles in order to deliver it at places much more accessible to other coal fields, whence coal could be obtained with far less tax upon the transportation energies of the country.


U. S. FUEL ADMINISTRATION
Mackinaw City
LAKE MICHIGAN
LAKE HURON
WISCONSIN
MICHIGAN
ONTARIO
Grand Rapids
Kalamazoo
LAKE ERIE
Cleveland
Ft. Wayne
ILLINOIS
INDIANA
OHIO
PENN
Richmond
Hamilton
Cincinnati
East Liverpool
OHIO RIVER
WEST VIRGINIA
KENTUCKY
VIRGINIA

COAL ZONE K

"The Fuel and Railroad Administrations have, therefore, been confronted with the responsibility of deciding whether they shall knowingly be parties to this waste of transportation, which, if not wasted, could be used so as to make practicable the production of more coal sorely needed to carry on the war. It is clear that in the interest of the nation there should be a different policy for the future. The coal zoning plan is the result of this decision.

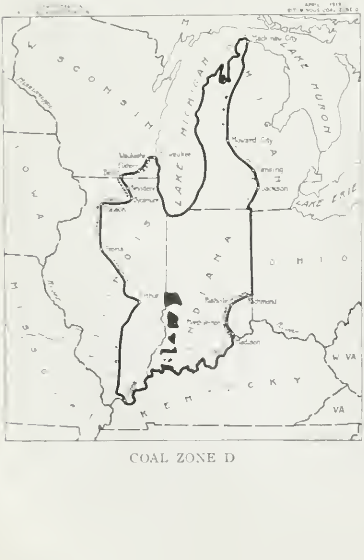
"After prolonged conferences with coal producers, jobbers, and consumers, and with the traffic and operating officials of the railroads, zones have been established so that coal supply shall be normally derived from mines relatively near, thus preventing these abnormal and wasteful transportation movements, insuring more equal distribution of cars to the mines, and more steady employment of mine labor.

"The patriotic cooperation of the many interests and individuals who may be affected by this cutting out of unnecessary transportation is confidently hoped for. When a consumer finds that he no longer has the opportunity to get his coal from a distant mine according to his custom, it is hoped that he will realize that his using another sort of coal is an essential part of the scheme of conservation in the interest of the national defense. When a coal producer finds that he no longer has a market to which, in the past, regardless of the unnecessarily long haul, he has sent his coal, it is hoped he, too, will realize that the resulting adjustment of his business is in the national interest; that there will be more cars and locomotives, and transportation energy to transport more coal from his mines to the markets he can reach within his zone; that his business in consequence should be increased rather than diminished.

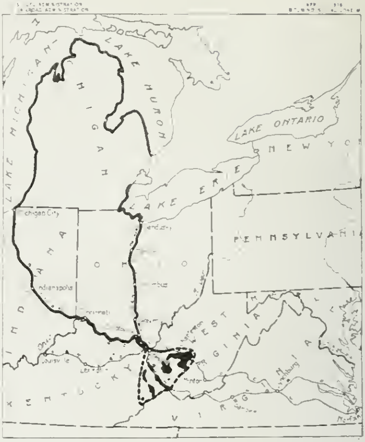
"The situation with which the Fuel and Railroad Administrations have thus had to grapple, is one of infinite complexity and no first effort to remove the waste can be perfect, or can fully meet all the constantly changing conditions. Realizing these limitations, the plan, as established, provides for elasticity through a system of special permits issued by the Fuel Administration when and as necessary.

"The general effect of the zone system is to restrict eastern coal to eastern markets and fill the vacancy in the central and western states with nearby coal produced in those states.

"In addition to the saving in transportation the system will provide for the possible retention of something like 5,000,000 tons of coal for the eastern states which heretofore has gone west all rail. This tonnage can be readily utilized in the east. As an indication of the saving to be effected by the system, it will eliminate the movement of more than 2,000,000 tons of Pocahontas coal to Chicago and other western points over a haul of about 660 miles. Chicago can obtain this tonnage of coal, and under this system must obtain it from southern Illinois mines with an average haul of 312 miles. Allowing for the differences in quality in the two coals there will be thus saved 11,400,000 car miles or very conservatively figured, 285,000 car days. This will permit fourteen additional round trips of twenty days each from West Virginia mines to zone destinations, permitting an additional production of at least 700,000 tons of Pocahontas coal.



COAL ZONE D



COAL ZONE M

"Similar comparisons show that on the movement of 550,000 tons annually from Kanawha districts to Wisconsin points there can be saved about 2,500,000 car miles with a consequent increased production of some 300,000 tons. On the movement from southeastern Kentucky to Chicago the saving will be about 800,000 car miles and 50,000 tons production. The elimination of the Indiana to Iowa movement will save 1,600,000 car miles and permit 100,000 tons additional production. These are only a few of the instances of transportation saving to be effected by the system.

"The bituminous coal, the movement of which is regulated by the zone system, is about 300,000,000 tons, or 60 per cent of the total production. Based on this production there will be saved on the round trip from and to the mines almost 160,000,000 car miles. This will permit the same cars to make almost 300,000 additional trips from the mines, equivalent to an increase of 5 per cent in the production. The increase in total production in 1917 over 1916, resulting from all efforts, was about 8 per cent.

"A large part of the coal which the system will prevent from moving west out of the eastern producing districts will be available for use in New England, in so far as it can be transported there. Production in the districts supplying New England, via all rail routes, can be increased somewhat, but there is difficulty in moving by all rail routes the amount of coal needed, and the capacity of the rail gateways to New England has been nearly reached. Improvements now being made will increase the capacity of the Poughkeepsie Bridge route, but it is impossible to escape the conclusion that provision must be made for a much larger movement by water in 1918 than in 1917, or New England and its people and indutsries will suffer.

"This situation will be made the subject of a separate study by a committee representing the United States Shipping Board, the United States Railroad Administration, the United States Fuel Administrator, coal operators in the territory involved, the railroads involved in the movement of this coal and consumers in the territory affected.

"The restrictions imposed upon the movement of coal by the zone system will make necessary some readjustment in fuel practices in various communities affected by these restrictions. The Fuel Administrator confidently expects the patriotic cooperation of every coal consumer who may be inconvenienced by reason of the use of fuel to which he has not been accustomed. The vast purposes to be served by the savings which the system effects will undoubtedly command the support of every user of coal.

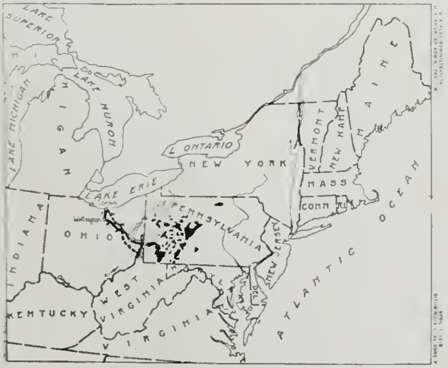
"Under regulations of the Fuel Administrator, coal of particular quality or characteristics for a special purpose, such as by-product gas, blacksmith, and metallurgical coal, will be permitted to move by permit beyond the limits imposed by the zone system. Permits will be issued to the individual consumers having need for this special purpose coal where a supply is not available in the producing districts which are permitted to ship into the consuming zone where the consumer is located. Applications for permits must be made to the Zone Permit Bureau of the United States Fuel Administration in Washington.

"The zone system affects all bituminous coal except, coal for railroad fuel for which special arrangements will be made by the Fuel Administrator and the Director General of Railroads; coal for movement on inland waterways which is in no way restricted by the system; coal delivered to Canada which is subject to regulations of the Fuel Administrator.

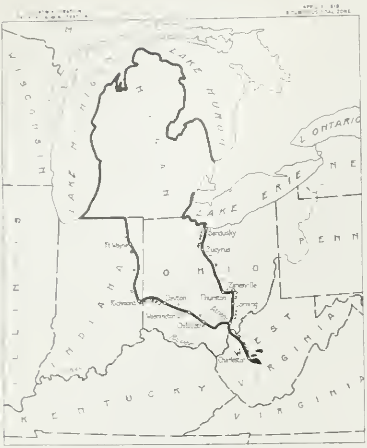
"Heretofore, many of the mines in many of the producing districts throughout the country have been unable to keep up their production in the summer months because of the decreased demand for their product. Under the zone system these producing districts have been allotted consuming territory which will demand a large increase in production. Thus, coal which has long been available, but not used, will be added to the aggregate supply for the country as a whole. Consumers in these zones must fill their bins during the coming summer, and keep these mines running every day of the week if these zones are to avoid serious coal shortage next winter.

"The early buying of next winter's supply of coal by consumers throughout the country is considered imperative by both the Fuel Administrator and the Director General of Railroads.

Ample production capacity has been assigned to each of the consuming zones outlined in the system, but these producing fields must



COAL ZONE P



COAL ZONE L

be kept working, as nearly as possible, at their maximum capacity if the system is to be a success.

"The method of enforcement of the zoning system is that the Fuel Administration prohibits distribution beyond the limits of the zone, and the Railroad Administration supplements these prohibitions by railroad embargoes. When permits shall be issued by the Fuel Administration to admit of distribution beyond the zone limits, such permits will operate as exemptions from the embargoes and the embargoes will so provide."

ALUMINUM PRICES FIXED BY AGREEMENT

War Industries Board and Producers Agree on Maximum Price of 32 Cents a Pound

After investigation by the Federal Trade Commission as to the cost of production, the President has approved an agreement made by the War Industries Board with the producers of aluminium, fixing a maximum base price of 32 cents a pound at the various American plants, and their subsidaries, subject to revision on June 1, 1918; such price to cover lots of 50 tons and over of ingot of a grade of 98 to 99 per cent. The differentials now in force for the sundry grades, quantities and shapes, will continue in force for new contracts. Deliveries on "indirect government orders" to parties who now have contracts with the company producing aluminum at a base price in excess of 32 cents a pound shall be under such contracts, but the purchasing Government, on satisfactory proof that such amount has been delivered, shall get the benefit of a rebate amounting to the difference between the price such parties would be entitled to at a 32-cent base price and the contract price for the net weight of aluminum delivered to the Government, plus the weight of the necessary and proper amount of scrap.

Deliveries which have been made on direct or indirect orders, subject to adjustments shall be adjusted to the 32-cent basis.

The conditions of the agreement are:

First, that the producers will not reduce the wages now being paid; second, that they will sell to the Allies, to the public, and to the Government at the same price; third, that they will take the necessary measures, under the direction of the War Industries Board, for the distribution of the aluminum to prevent it from falling into the hands of speculators who might increase the price to the public; and fourth, that they pledge themselves to exert every effort necessary to keep up the production of aluminum so as to insure an adequate supply so long as the war lasts.

LITTLE CHANGE IN STEEL PRICES FOR NEW QUARTER

"The President has approved the recommendation of the Price Fixing Committee of the War Industries Board that the maximum prices heretofore fixed by the President upon the recommendation of the Board, upon ore, coke, steel, and steel products, subject to revision on April 1, 1918, be continued in effect until July 1, 1918; from April 1 to July 1, however, the maximum price of basic pig iron be reduced from $33 to $32 per gross ton, and that the maximum price of scrap steel be reduced from $30 to $29 per gross ton. No new contracts calling for delivery of any of said commodities or articles on or after July 1, 1918, are to specify a price unless coupled with a clause making the price subject to revision by any authorized United States Government agency, so that all deliveries after that date shall not exceed the maximum price then in force, although ordered or contracted for in the meantime. It is expected that all manufacturers and producers will observe the maximum prices now fixed."

Willing to do His Part

A prominent figure in the profession of mining technology writes the American Mining Congress as follows:

"I wish definitely to ally myself with the organization as a part of my patriotic duty to our country at this juncture. I conceive that at the moment your work has a definite value in its bearing on the public welfare, and I desire to assist to the measure of my abilities."

PETROLEUM INDUSTRY IN WAR SERVICE

Requa Points Way Oil Men Best Can Advance Interests of Allied Cause

Mark L. Requa, director of the Oil Division of the United States Fuel Administration, addressed the Petroleum Congress, at Chicago, March 29. He said:

This war cannot be won without an ample supply of petroleum products. We must have, if we are to succeed, not only fuel oil but gasoline, kerosene, and lubricants as well; for them there is no known substitute.

It is not possible to single out any one product and say of it, this is the most important for the winning of the war. We may say truly that the most important element is the spirit of the soul of the people, the morale of the Nation, but in dealing with our industrial life we have absolute need of many things. Food we must have, or perish; steel, copper, chemicals, petroleum—we have need for all of these, and more, or we must suffer defeat. From the standpoint of the winning of the war, not one of these products is more important than petroleum. It lubricates the machinery of our transportation and manufacturing, it plows our fields, drives our vessels at sea, and gives life to the airplane that watches over our soldiers and sailors.

Those who are engaged in the petroleum industry have a national obligation to perform, a personal responsibility and duty that they cannot escape even if they would. In a peculiar degree we are responsible for petroleum supplies, not only for our own forces but for the forces of the Allies as well. We are nearest to the scene of action; our ability to meet the increased requirements is the least questioned. Not alone have we the oil resources of the United States to draw upon, but the oil resources of Mexico are also at our command, thanks to the indomitable courage of American citizens who have developed those fields and made available those tremendous reserves. These resources of the Western Hemisphere afford a reserve supply that can and will meet any demand that may be made upon them.

It is the duty and the privilege of those engaged in the industry to make those resources available to the nation when and where needed; to anticipate months in advance the probable requirements, and plan accordingly. An oil well cannot be drilled in a day; pipelines, tank ships and tank cars cannot be constructed overnight; so that if we are to meet the requirements of six months hence we must outline procedure at once and work to those plans without interruption.

This should be done by the voluntary effort of the industry with the cooperation of the Government making possible greater efficiency. To accomplish the end sought by combined effort, to attain, united, those results that cannot be attained save by the most harmonious unity of action and purpose is the duty of the Oil Division and the oil trade.

It is a far cry from the days that mark the birth of the petroleum industry, and it is not my intention to review the history of those years. I take it that you are not so much interested in what has happened as in what may happen. This is neither the time nor place for an academic discussion of recorded facts; it is, however, an opportune time for considering conditions of today and possibilities of tomorrow.

It is not sixty years since the first oil well was drilled in the United States. The span of a single life can easily cover the space into which have been crowded the most marvelous accomplishments of any period of history. Into these few years have been compressed achievements which might well have been spread over centuries and even then there would have been left but few uneventful periods for the observation of the historian. What might well have taken a century has been accomplished in a year; the work of a year in a month, and the month's work has been finished while the hands of the clock traveled twice around the dial. Unsatisfied with these accomplishments we have striven constantly for greater achievement. The initiative and freedom-of-action of the individual has been the dominating motive-power behind the mighty effort. It is true that nature endowed our land with lavish hand, but under the rigid restrictions of an autocracy we should have failed in the development which is so characteristically American.

The golden days of our pioneer era are behind us. The assets in nature's storehouse, vast though they be, are no longer unknown quantities but in considerable degree have been measured, in part exhausted, and while there is much yet remaining it behooves us to pause and consider our stewardship; to plan for the future; to calculate the extent of our resources, and to use them wisely and well in the national interest—and at the same time with justice to the individual without whose energy these resources would have remained as unknown and undeveloped as under the ownership of the savage who lived in the forest primeval, fished in the rivers, hunted the buffalo on the plains, and remained to the end ignorant and unappreciative of the industrial possibilities locked in the rocks of our mountains or buried beneath the soil of our prairies.

The rise of the American nation will ever remain unparalleled in the history of the world. The achievements of this people will never be duplicated; the imprint made by them upon the pages of history never effaced. The world holds no unpopulated area wherein it is possible to find undeveloped resources such as those with which this country is so bountifully endowed. Time and circumstance will never again pass together over such a fruitful field. No period can again be so prolific in human advancement as the hundred and forty-two years that mark the milestones of our national existence.

The term of our life as a nation has been preeminently the day of scientific and industrial achievement. It has been the day of the engineer. The hidden powers of steam and electricity have been discovered within this period, and the influence of those agents upon the mode of human living is still progressive. Our giant steamships have conquered the terrors of the ocean; our railroads have subdued the continent; the telephone, the telegraph, and the wireless have annihilated time and space; and the airplane vies with the eagle in the realm of air.

It is only as we think back over the last few decades that we realize the tremendous advance in all forms of locomotion and communication. The development of power and electricity in various forms, its application to stationary machinery, locomotion, and communication, has been the keystone of the arch upon which is built modern society. Eliminate these, and we revert to the Dark Ages. The Ancient Greeks and Romans enjoyed a civilization perhaps superior to our own; they lacked what we have achieved in the past hundred years: the control of steam and electricity.

And lacking that, the world through two thousand years made less progress than has been achieved in the past two hundred. Few of us pause to consider the tremendous difference between present methods of living and those of one hundred years ago. We accept the electric light as a matter of course, yet many of us can remember when gas was a curiosity and the telephone unknown.

A journey that then required days, and was the theme for family discussion for weeks in advance, is now accomplished in an afternoon. With all the comforts of our homes we now travel in four days from the Atlantic to the Pacific, and it is not even cause for passing comment. The land is girdled with bands of steel and wires of copper; the ocean teems with floating hotels, moving from place to place at express train speed in defiance of wind and wave; while beneath the white-capped surface, in the darkness of ocean's depths, the electric spark travels from shore to shore, bringing Cathay to our doorstep and forever debarring us from the privilege of world-isolation, much as we might desire such a fate Much of this development has been made possible by lubrication, for which use petroleum stands supreme.

We may no longer hold aloof from the consideration of matters of international significance. Our Congress must consider not only the State of America, but the States of the World as well. It is not our choice. It is the evolution of world-history—the end of which no man may know. Science and industry have swept away the barriers of distance The events of the world of yesterday are chronicled for us at the breakfast-table of today. The markets of the world are reflected daily in those of America. Verily steam and electricity have caused world-distances to shrink to the infinitesimal since Sir Francis Drake circumnavigated the globe.

The last century and a half has witnessed the conquest of a continent. From the forbidding shores of New England to the balmy lands bordering the Pacific the pioneer has steadily pushed forward, blazing new trails, carving out new states, building magic cities, until the frontier has disappeared and the tide of restless humanity rolls backward upon itself from the Golden Gate—and lo! the pioneer is gone; the frontier merely a memory. A new generation—in a Pullman car—follows the emigrant trail, with little thought of those who blazed the way and whose passing may be marked by a lonely headstone 'mid the snows of the Rocky Mountains or a skeleton bleaching on the sands of the Colorado Desert

All honor to the hardy pioneer who braved with unfaltering courage the vicissitudes of those early days in the hope of wringing his reward from unwilling mother earth; to him the wreath of unfading laurel—that most prized of all tokens by the Ancient Greeks, typifying supremacy, endurance, and courage.

The problems of yesterday are not the problems of today. Then we saw a continent being wrested from the wilderness. Then the uninhabited prairie stretched away into the haze of the distant horizon. Land was to be had for the taking. The problem then was one of peopling that wilderness. We beckoned the stranger from the four corners of the earth to assist in its settlement; we gave with prodigal hand of the nation's assets to stimulate individual effort. Today the unsettled prairie is a thing of the past, and we begin to realize that our national resources, bounteous though they be, are not limitless and that time is fast approaching when we must husband what we still have and dole out our diminishing store with thrifty hand. No longer may the individual recklessly waste our natural resources, initiative must not be destroyed, the hoped-for reward must still be sufficient to promote untiring effort, but the citizen must be taught the lesson that he labors not alone for his own personal gain but as trustee of the nation's treasures which are not to be idly squandered or dissipated.

Much of the development that marks this wonderful epoch has been accomplished since the first oil well in Pennsylvania (1859) heralded the coming dawn of a new industrial era. Truly that event was momentous in the history of our national life. Steam power was beginning to shape events; the railroad was an accomplished fact; lubrication was more and more entering into the problem of industrial life; there was need of something to take the place of tallow and whale-oil. Petroleum supplied that need.

The story of the great petroleum industry is written on many pages and in many books. This is not the time or place to repeat what will forever stand forth in the pages of history as an accomplishment of first magnitude. Like all other industries, it progresses with the years. The methods of yesterday are obsolete; those of today do not satisfy; and we look eagerly forward to what the morrow may bring forth in improved methods of production and refining. It is a far cry from the first crude efforts in oil distillation to the practices now in vogue, and yet we are safe in prophesying that the improvements yet to come will further advance the technology of the art.

As the application of steam and electricity grew, so grew the demand for more and better petroleum products. One to a large degree kept pace with the other. The original "puffing Billy" has grown into the Mallet Compound of today; the original Robert Fulton, wending laborious way down the placid Hudson, into the monster turbine-driven battleship. All these—all machines—have been dependent upon lubrication, upon petroleum; and the more recent advances in marine construction have been predicated upon the use of fuel oil as the means of steam generation.

We have witnessed in the past decade the rise of the internal combustion engine. Its profound effect on rural as well as urban life grows more and more manifest as the days go by; it competes with the locomotive and the trolley as a means of rapid transit; and as a method of distributing freight in our cities, plowing our fields, and providing healthful recreation it is rapidly superseding the horse As an instrument of war it is of paramount necessity: driving the swift-flying airplane that serves as the aerial scout to our armies it makes possible observations for lack of which disaster would be the inevitable portion of our forces.

In the realm of the internal combustion engine, petroleum reigns supreme; it supplies the motive power; it lubricates the machinery; it is, in short, the life fluid without which neither motor vehicles nor airplane could serve the needs of humanity.

The internal combustion engine has created a demand for gasolene of hitherto undreamed-of proportions: it has made what was once considered almost a waste product into the most important element derived from petroleum distillation. Inability to supply the rising demand by recognized methods of refining has spurred inventive genius to new efforts, until today we have the new practice of pressure distillation with its resultant increase in gasolene output. He would be indeed a brave man who would dare prophesy the end of this evolution in refining methods. As the needs of the time require, new ways are found for the performing old tricks and the skill and inventive genius of the refiner keeps pace with the ever-mounting consumption of his products.

And what are our assets, with which to meet the demands which may be made upon us for petroleum? What is the strength of this young giant that responds to the nation's call to arms?

We have produced from the year 1859 to date a total of more than 4,250,000,000 barrels of oil. Our production has increased, by decades, from 500,000 in 1860 to 5,260,000 in 1870; 26,286,000 in 1880; 45,823,000 in 1890; 63,620,000 in 1900; 209,557,000 in 1910, and 330,000,000 in 1917. Over long periods the average increase has been about 7 per cent of the previous year's production. At this rate of increase we shall require 460,000,000 barrels per annum in 1917 and for 1918 if the average holds good we shall require an additional amount above last year's production of approximately 23,000,000 barrels. It will be forthcoming, of course; from the known fields, if necessary; and perhaps in part from new discoveries—the hope of making which lures ever onward the optimistic wildcatter that virile pioneer of the oil fields who cheerfully takes the gambler's chance in the hope of reaping a reward commensurate with the risk.

We are beginning to realize, however, that our resources are not limitless. It is the concensus of opinion that the Appalachian, Lima (Indiana), and Illinois fields can add little in the way of increased production; leaving but three great known fields to meet our future requirements—Mid-Continent, Gulf and California.

The changes in the industry are startling; today a flow of oil, tomorrow a famine. Spindletop was discovered in 1901, and yet today the Southern Pacific brings oil from Mexico to supply its locomotives plying in Texas. We are confronted with constantly mounting consumption, and a constantly increasing percentage of exhaustion. Some day the lines must cross, production will no longer be able to keep pace with consumption and we must seek other sources of supply.

Any mathematically exact estimate of the petroleum yet to be extracted from the rock formations of the United States is, of course, impossible. Undeveloped areas now unknown may add very greatly to our present estimates. Speaking broadly, however, I think I am safe in saying that it is our duty to conserve most carefully our remaining stores. Locked in the earth, they are of course valueless. Do not misunderstand me or imagine that I am arguing against production, against wildcatting, against the individual effort having for its incentive an adequate reward. I believe all of these things must be done. But I am also of the belief that increasingly efficient methods of combustion, lubrication, and general conservation will materially alter practices that can be safely characterized as wasteful.

In viewing the petroleum industry from the government standpoint it necessarily means the viewpoint of national welfare in contradistinction to individual gain; it means the wise husbanding of our available resources so that they may last the greatest possible length of time, in contradistinction to producing the greatest quantity in the least time and converting into money the treasures of nature's storehouse.

With the exhaustion of our oil, or its advance in price, we have, of course, the alternative of producing oil from shale. That there are enormous areas of such shales in the United States is well known among geologists and others who have taken the pains to investigate. These shales will undoubtedly in time be mined for oil, but we must remember that to produce a quantity of oil equal to our present production we shall have to mine a daily tonnage of shale in excess of the tonnage of coal now mined daily. The magnitude of such an undertaking is obvious. It will not be the growth of a day, but of years. And it is entirely likely that because of plentiful supplies of oil which may be brought to the United States by water—cheap oil from Mexico and Central America—it will be many years before these shales are utilized.

The technology of production has advanced with tremendous strides. Drilling tools of twenty years ago seem but toys as compared with those now being used. More and more the rotary supplants the cable. And more and more the technology of the industry approaches the scientific. The old rule of thumb gives way to the calculations of the engineer. The old order passeth, and with it, I suspect is passing the old type of wildcatter, who is being superseded by the scouting geologist trained in the study of rocks. We are learning as the years go by that there is much for the geologist to do; he may not always tell us where oil lies buried, but often he can tell us where it is hopeless to make the attempt to find it.

And if this be true, it is important that his services be utilized to the maximum. Economic waste in whatever form is, or should be, repugnant to the forward-looking citizen who discerns, perhaps, on the distant horizon the possibilities of fierce competition for the trade of the world, following cessation of war. Europe has learned much in the past three years. The stern necessity that has imposed unparalleled economic discipline upon the people of Europe will not disappear or be forgotten with the coming of peace. The iron has sunk too deeply into the soul, the lesson has been too bitterly impressed to permit relapse after the war into conditions of ante-bellum days.

We have wasted in the past because there was not incentive to save. To our ancestors the forest seemed limitless, the mines inexhaustible, the uninhabited lands to the West ending. We no longer harbor such illusions, but rather do we ask in questioning doubt, from whence shall posterity supply its needs for lumber, for the products of the soil and of the mines?

The pressure of increasing population has much to do with the cause of this war. For a time we viewed the conflict from afar; we sought in vain that isolation that was impossible; we clung desperately to the hope that the cup might not be forced to our lips, that we should not be compelled to drink the bitter dregs. Our hopes were in vain. It was our liberty as much as France or England's that was at stake; it was our destiny to help maintain democracy; to combat on the field of battle the world ambition of autocracy. We are engaged in that struggle; we have the one paramount task to perform; we must see to it that the torch of freedom kindled at Bunker Hill shall not be extinguished; that the cold and unsympathetic rule of autocracy shall not overrun the world.

This is no time to quibble over technicalities; no time to debate the power of the Government to perform any proposed act. We are at war. The life of the nation is at stake. The preservation of our national existence if of such paramount importance that nothing else really matters, compared with that duty. I have little patience with the individual who believes in the doctrine of business as usual. Business is not "as usual" —and will not be so long as the war lasts.

Each month during the war the priority demands of the Government will become more and more insistent, the duty of the citizen to supply those demands more and more clearly defined.

If zonal distribution of petroleum products is necessary to supply national needs, zonal distribution will be accomplished. If pooling of tank cars and ships will more efficiently meet national demands, those facilities will be pooled. If well-drilling supplies must be allocated in order to produce the greatest quantity of oil to meet the increasing demands for oil, well-drilling supplies will be allocated. If licensing of jobbers and others is necessary, they will be licensed. If the petroleum industry, or any part of it, is so unwise as to engage in profiteering, ways and means will be found to correct that condition. In short, whatever the national needs may be, everything that is necessary will be done to meet those requirements. President Lincoln summed up the case when he said in 1863, "I think the Constitution invests the Commander-in-Chief with the law of war in time of war."

Government control does not necessarily signify disaster to an industry. It may be entirely necessary to assist the industry controlled, in performing its normal functions which, because of war's dislocating effects, are impossible of performance in the normal way. We face a condition of shortage today in many lines of basic products—steel, coal petroleum, copper, manganese, sulphuric acid, ammonia—and many other important products are, for one reason or another, in demand in excess of the supply. Whether it be actual shortage or lack of transportation the result is the same; there is not enough to go around and satisfy all demands. The manufacturer of oil well supplies finds it difficult, if not impossible, to secure raw material to meet his manufacturing needs; the owner of tank cars is unable to secure satisfactory deliveries of cars ordered months ago; the refiner of oil is harassed because of inability to supply his plant with the materials necessary to permit continuous and efficient operation.

Single-handed, or even united by trade associations, the individual stands but little chance in competition with governmental departments possessing all the power of priority orders and commandeering. Unless there is some governmental department charged with sympathetic supervision, it is quite conceivable that in the fierce competition for priority the unrepresented interest will fare badly.

I do not want you to misunderstand my meaning or conclude that because certain possibilities are discussed action will follow. We must endeavor to consider and discuss every phase and angle of the question, and to anticipate the needs of the time; we must cooperate in finding solution for the problems as they are presented; and if the industry cannot effect the solution, the function of the Oil Division is to step in and help; keeping always in mind a few simple fundamentals that may be summed up in the statement that normal channels of trade should, so far as possible, go undisturbed, that detail operation of business should be left in the hands of those men who have made it what it is and that the function of the Oil Division is to assist with governmental aid in making possible those obvious changes which the industry cannot accomplish alone and that, when accomplished, permit more effective discharge of the obligations and the performance of the patriotic duty owed to the nation.

The war service of the petroleum industry is of the highest importance. It should be looked upon as a priceless privilege to assist in winning this war. The honor of patriotically, promptly and efficiently performing that service should be guarded with the same jealous care with which you guard the welfare and sanctity of your homes.

This war cannot be won without petroleum, and you have each your part to do in providing that commodity. Your responsibility is no less great than the soldier's in the front line trench; your failure to discharge that obligation no less treasonable. You must keep our industries supplied with the petroleum products so vitally necessary for the production of those things that will make it possible for our air squadrons to sweep the skies, our soldiers and sailors to triumph over our foes, and to prove for all time that a free people in defense of their liberty will gladly and willingly sacrifice their all to the end.

PRICES REVISED IN WASHINGTON, OKLAHOMA AND ARKANSAS

Maximum prices at which coal may be sold at the mines have been fixed by the United States Fuel Administration for fields in the states of Washington, Oklahoma, and Arkansas. The prices became effective March 29.

Reductions in prices during the summer months are provided for in the price fixing order as to Arkansas and Oklahoma.

The prices named for mines in Washington are as follows: Screened coals; bituminous, Kittitas county: Run of mine, $3.55; prepared sizes, lump and egg, $3.95; special steam and gas, $3.25; slack, $2.50. Sub-bituminous, Lewis and Thurston counties: Run of mine, $2.75; prepared sizes, lump, $3.95; lump nut, $3.25; nut, $3; slack, $1.25.

Washed coals.—Bituminous, Kittitas county: prepared sizes, $4.00. Pierce, King, Lewis, and Skagit counties: prepared sizes, lump nut, $6; mixed steam, $5.25; straight steam and gas, $4.80; slack, $2.50. Sub-bituminous, King county: prepared sizes, lump nut, $5; pea, $3.50; buckwheat, $3.25; and slack, $1.50. Lewis county: Lump, $3.95; nut, $3.75; pea, $3; buckwheat, $1.50; slack, $1.25.

Preparation of coal mined within the state of Washington shall conform, the Fuel Administration order says, to reports submitted to, and approved by, the State Mine Price Board, subject to such further modifications as may be approved by the State Fuel Administrator.

Classifications and prices for bituminous coal at the mines in Arkansas are as follows: Johnson, Franklin, and Sebastian counties, except the Excelsior district: Run of mine, $3.70; prepared sizes, $4.60; slack, $2.40. Logan and Scott counties, and the Excelsior district of Sebastian county, namely, the mines on the Midland Valley railroad; (*a*) north of Montreal Junction, and (*b*) east of Hackett and west of, but not at, Greenwood: Run of mine, $4.35; prepared sizes, $5.15; slack, $2.60. These prices do not include the 45-cent allowance to operators who have complied with the Washington wage increase agreement.

Summer reductions in prices on all grades except slack, are as follows: March, 75 cents; April, 60 cents; May, 45 cents; June, 30 cents; July, 15 cents. On August 1 the base price is again effective.

Oklahoma prices announced were: Leflore, Haskell, Okmulgee, Tulsa, Rogers, and Coal counties and the Hartshorn-Wilburton vein in Pittsburg and Latimer counties: Run of mine, $3.70; prepared sizes, $4.60; slack or screenings, $2.40.

McAlester vein in Pittsburg and Latimer counties: Run of mine, $4.25; prepared sizes, $5.10; slack or screenings, $3. Summer reductions on all grades, except slack, are provided for and are the same as those made applicable to the Arkansas mines mentioned in the order of today.

Operators who have complied with Washington wage agreement are authorized to add 45 cents per ton on account of the advance in wages.

Inasmuch as the orders relating to the three states in which prices were fixed today deal with reclassifications of territory, no comparison is made with former prices at the mines affected.

E. J. Newbaker, Division Superintendent of the Wyoming Division of the Lehigh & Wilkes-Barre Coal Company, has resigned his position and will hereafter be associated with the Berwind White Coal Company, with headquarters at Philadelphia, Pa.

COAL PRICES ANNOUNCED FOR COLORADO, MONTANA, WYOMING AND UTAH

Maximum prices at which coal may be sold at the mine were announced recently by the United States Fuel Administration covering coal operations in the states of Colorado, Montana, Wyoming and Utah.

Maximum prices for Colorado lignite were also established in the order. Provision is made for reduction in price of Colorado coal during the summer months. The prices became effective March 11. The maximum prices for the four states mentioned in the two orders are:

Colorado: Bituminous domestic coal, domestic field, run of mine, \$2.25; prepared sizes, \$3.50; slack or screenings, \$1.25. Bituminous steam coal, Trinidad district, run of mine, \$2.35; prepared sizes, \$3.25; slack or screenings, \$1.65. Lignite coal, run of mine, \$2.25; prepared sizes, \$3.25; slack or screenings, \$1.

The above prices are subject to the following reductions: Bituminous domestic coal, April 1, 70 cents; May 1, 50 cents; June 1, 35; August 1, 15 cents. The summer reductions in the Trinidad district on bituminous steam coal are April 1, 40 cents; May 1, 30 cents; June 1, 20 cents; July 1, 10 cents.

These prices do not include the 45 cents per ton allowed to operators who have advanced wages in compliance with the Washington wage agreement.

The former price in Colorado were: \$3.00, for run of mine bituminous domestic; \$4, for prepared sizes; and \$1.50 for slack or screenings. Former prices on lignite were \$2.45, \$3.50, and \$1.25, respectively.

Prices for Montana, Wyoming, and Utah coal were made uniform in the order issued today, and are as follows: Run of mine, \$2.65; prepared sizes, \$3.30; slack or screenings, \$1.50.

The former prices in these states were: Utah, \$2.60, \$2.85, \$2.35; Wyoming, \$2.50, \$3.50, \$1.25; Montana, \$2.70, \$3.60, and \$1.50, respectively.

The order as to the three last-named states is effective at 7 a. m., March 11, and also does not include the 45 cents allowed to such mines as have complied with the terms of the wage agreement.

COMMERCIAL AGREEMENT WITH SPAIN IS CONCLUDED

The negotiations between the United States and Spain for the conclusion of a commercial agreement have been brought to a successful conclusion.

These negotiations have been of a three-sided character, dealing not only with the trade between the United States and Spain but also with arrangements for a French credit in Spain. The American representatives have been able, in addition to securing considerable amounts of desired supplies for General Pershing's forces in Spain and satisfactorily arranging the problems of American exports and imports, to materially assist the French Government in securing a large credit in Spain to finance payments for the supplies which the republic draws from Spanish sources.

Under the agreement Spain permits free export to the Allies of pyrites, minerals and manufactured wool, a concession of decided value to the Entente Powers, and the export to the extent permitted by home requirements of various other commodities, in addition to the specific licensing of the supplies required by General Pershing. In return the United States assures to Spain its necessary supplies of cotton and petroleum, the amount of the monthly export of these commodities being fixed in the agreement at a figure which will cover the genuine Spanish requirements but bar the possibility of German agents in Spain secretly buying up and hoarding a stock of cotton against the time of the conclusion of peace. Spain is granted other supplies to the extent that they can be spared after satisfying home requirements in the United States and providing for the needs of its associates in the war. As has already been stated special concessions have been made in regard to locomotives and railway material, which are required to increase the carrying capacity of the Spanish railway system—a measure of decided importance to America and its associates which are drawing supplies from Spanish territory.

GRAPHITE IMPORTATIONS CUT DOWN DECIDEDLY

The Committee on Mineral Imports and Exports, consisting of Messrs. C. K. Leith, Pope Yeatman and J. E. Spurr, representing the Shipping, War Trade and War Industries Boards, have reported to Dr. E. F. Gay, of the Shipping and War Trade Boards, recommendations concerning the restriction of graphite imports from Ceylon and Madagascar, and the same has been duly approved of by the War Trade Board and will be made a basis for future licensing of graphite imports. This will apply principally to Ceylon as very few imports are coming from Madagascar. In accordance with the recommendations, a three-months embargo has been made upon importations of graphite, and the importation for the remainder of the year will be limited to 5,000 tons. The usual annual importation of graphite from Ceylon and Madagascar is about 25,000 tons, but the stocks on hand are very considerable constituting a margin of safety for this program.

The principal sources of the domestic supply are in Alabama, and the reduction of importation is made on the assumption that the production from this district will be considerably increased. This the Alabama producers are very confident can be done.

EXPECT NO DROP IN PETROLEUM PRODUCTION

Oil Well Supply Men Agree to Cooperate with Fuel Administration and Expect no Shortage of Oil Well Supplies

Representatives of the oil well supply trade of the United States at a conference with representatives of the Oil Division of the United States Fuel Administration, promised fullest cooperation to prevent any diminution of production through any shortage of supplies.

One of the purposes of the meeting was to obtain a survey of the requirements of the oil well supply industry. Complete cooperation on the part of the Fuel Administration was promised in the matter of coordinating the needs of the oil men so as to balance production in such a way as to meet all requirements.

Mark L. Requa, director of the Oil Division of the Fuel Administration; Thomas A. O'Donnell, chief of the Department of Oil Production in the Fuel Administration; and A. C. Bedford, chairman of the Petroleum War Service Board, addressed the conference. The conference was presided over by J. H. Barr, of Pittsburgh.

Tentative plans were discussed for arranging for priorities in the matter of all kinds of supplies in which a possible shortage was indicated. About fifty men, representing the oil well supply trade in all parts of the country, attended the meeting.

REGULATIONS ISSUED GOVERNING THE LICENSING OF JOBBERS

Rules and regulations governing the distribution of coal and coke through jobbers have been issued as follows:

Rule 1. A licensee who, as owner or selling agent for another, sells coal or coke without physically handling the same on, over or through his, or its, own vehicle, dock, trestle, or yard, shall not ask, demand or receive for such coal or coke more than the priced fixed by the President or the United States Fuel Administrator for such coal or coke f. o. b. cars at the mines or ovens, and in effect at the date of the sale thereof, plus five (5) cents per ton of 2,240 pounds of anthracite coal, when such licensee incurs the expense of rescreening such coal at Atlantic or lake ports for transshipment by water.

Rule 2. A licensee who acts as purchasing agent of coal for and by authority of a retail dealer or consumer without becoming the owner thereof, may charge a purchasing commission not exceeding (a) the sum of fifteen (15) cents per ton of 2,000 pounds of bituminous coal, (b) five (5) per cent of the delivered price of smithing coal when certified in writing by the retail dealer or consumer that such coal is to be used for smithing purposes only, (c) the sum of twenty (20) cents per ton of 2,240 pounds of anthracite coal when delivery of such coal is to be effected at or east of Buffalo, or (d) the sum of thirty (30) cents per ton of 2,240 pounds of anthracite coal when delivery of such coal is to be effected west of Buffalo, provided that such licensee may add to such purchasing commission five (5) cents per ton of 2,240 pounds of anthracite coal when such licensee incurs the expense of rescreening such coal at Atlantic or lake ports for transshipment by water. The combined purchasing commissions of any number of licensees who act for a retail dealer or consumer in the purchase of a given shipment or shipments of coal shall not exceed the commissions herein allowed for one licensee. No licensee shall charge any purchasing commission as purchasing agent of coke for a retail dealer or consumer. Any coal or coke purchased by a licensee for any consumer or retail dealer may be charged and invoiced to such licensee as agent.

Rule 3. No licensee shall ask, demand or receive any commission, charge or profit as broker or purchasing agent from any consumer or retail dealer for the purchase of any coal which is owned by such licensee, or in which he or it has any direct or indirect interest, or for selling which such licensee is entitled to receive any commission or compensation as selling agent or otherwise, or which was produced from a mine controlled, directly or indirectly, by such licensee, or by the controlling owners of such licensee, or from a mine whose owner or the stockholders, members, or partners who control such owner also control directly or indirectly such licensee.

Rule 4. No licensee shall rebate or pay to any owner of a mine producing coal or to any person directly or indirectly interested therein, either as stockholder, partner, member of association or otherwise, any part of any commission, charge or profit received by such licensee.

Rule 5. No person exclusively employed as salesman by a single producer or exclusively employed as purchasing agent by a single consumer, shall be required to procure a license for the performance of his duties as such salesman or purchasing agent.

Rule 6. Contracts relating to bituminous coal made before the President's Executive Order of August 21, 1917, and contracts relating to anthracite coal made before the President's Executive Order of August 23, 1917, which are bona fide in character, and enforceable at law, shall not be affected by Rule 1 hereof, but coal purchased or sold under such contracts shall be governed by paragraphs 8, 9, 10 and 11, (as modified by the order of the United States Fuel Administrator, dated November 8, 1917) of publication No. 9 of the United States Fuel Administration.

Rule 7. Every license shall be in such form and shall contain such terms, provisions, limitations and restrictions as the United States Fuel Administrator may from time to time prescribe, and the same shall be subject to modification and revocation by him, and shall be issued and held subject to these and such further rules and regulations as he may from time to time establish.

The above rules and regulations approved and promulgated this 15th day of March, 1918, to become effective 7 a. m., April 1, 1918.

H. A. Garfield,
United States Fuel Administrator.

Approved:
Woodrow Wilson.

20 CENTS MORE FOR OPERATORS WHO CLEAN THEIR COAL

Great improvement in the quality of bituminous coal is expected to result from an order issued by the United States Fuel Administration, under which operators who use special means for eliminating impurities from their products, will be permitted to add 20 cents a ton to the government prices for coal at the mine.

Comparatively few veins of bituminous coal are wholly free from slate and carbon. Many of them contain such large percentages of those, and other impurities, that their separation from the coal necessitates the use of mechanical appliances, and the employment of additional labor. The expense incident to this work materially reduces the profit of operating such mines.

The objects of the Fuel Administration in offering to allow increases to such operators were to stimulate production, and to insure a better quality of coal to consumers dependent upon such mines.

The offer of the Fuel Administration embraces the period from April 1 to July 31, 1918, and operators who desire to take advantage of it can do so by applying to the Legal Department of the Administration for permits. These permits will be extended beyond August 1 in all instances in which it appears proper to take such action.

Operators holding permits will be required to make monthly reports to the Fuel Administration, and the allowances to each operator will be based upon the expense shown to be involved in eliminating impurities from his product.

Retail dealers will not be permitted to add to their prices the allowances made to the operators, unless they also obtain permits from the Fuel Administration.

All coal prepared in conformity with the requirements of the Fuel Administration will be designated by cards placed in the cars in which such coal is loaded, and by notations on the invoices for the coal.

REVISED FUEL OIL REGULATIONS ISSUED

Changes Made to Remove Discrimination Found to Exist Against Small Dealers

President Wilson, acting through the United States Fuel Administrator, on March 25 promulgated revised rules and regulations governing the distribution of fuel oil in that section of the United States east of the Rocky Mountains. These regulations supersede those issued January 31, 1918.

Under a proclamation issued by the President, January 31, 1918, every manufacturer and distributor of fuel oil (including gas oil) whose gross sales aggregate more than 100,000 barrels per annum, was required to secure a license from the Fuel Administration on or before February 11, 1918. The regulations promulgated today control these licenses.

The reason for revising the regulations is that under the former provisions it was found that distributors controlling only a small supply of fuel oil were unable to meet the requirements of all their customers. Distributers controlling larger supplies, however, were able to meet the requirements of all consumers on the priority list. This situation worked a hardship to the customers of the smaller distributors and deprived essential industries of their fuel oil.

Under the new regulations if a distributor is unable to meet the requirements of all of his preferred customers, another distributor may be required by the Fuel Administration to meet this demand before he is allowed to supply his own customers who are not on the preferred list.

Twelve classes of consumers are specified in these regulations, and manufacturers and distributers are required to give priority in the distribution of fuel oil to them in the order in which they are named.

Deliveries must be made in conformity with this list regardless of any existing contracts between licensees and consumers in other classes. After the requirements of consumers entitled to priority are satisfied, licensees must carry out their contracts for other deliveries to the extent of their supplies.

The rules and regulations are as follows:

"These rules and regulations are promulgated by the President, acting through the United States Fuel Administrator, for the purpose of assuring an adequate supply and equitable distribution of fuel oil for purposes vitally essential to the national security and defense and to the successful prosecution of the war.

"The shortage in the amount of fuel oil which can be delivered, because of transportation conditions, is such that it is clearly a wasteful and unreasonable practice to deliver such fuel oil for uses which are not intimately and directly connected with the prosecution of the war.

"Rule 1.—No licensee engaged in the distribution of fuel oil in that part of the United States east of the Rocky Mountains, shall, without the consent of the United States Fuel Administrator, make any deliveries of fuel oil to any customer or consumer of any one of the classes mentioned below, whether the licensee is under any contract to make delivery to such customer or consumer or not; until such licensee shall have delivered to the customers or consumers of every class designated by a lower number with whom such licensee may have contracts, or to whom such licensee shall have been directed to deliver by order of the United States Fuel Administrator, all fuel oil to be delivered upon such last-mentioned contracts or such orders of the United States Fuel Administrator. Preferential deliveries as between members of the same class may be made only with the consent and under the direction of the United States Fuel Administrator. This rule shall apply to all deliveries of fuel oil, regardless of any contracts therefor or hereafter made.

"Provided that this rule shall not prevent the delivery of fuel oil by any licensee to any jobber or distributer if such fuel oil is to be used for a purpose for which the licensee could deliver such oil direct, nor in any case where the jobber or distributer shall have been licensed or designated by the United States Fuel Administrator.

"The classes referred to and the order of their preference are as follows:

"1. Railroads, bunker fuel and oil refineries using or making fuel oil.

"2. Export deliveries or shipments for the United States Army or Navy.

"3. Export shipments for the navies and other war purposes of the Allies.

"4. Hospitals where oil is now being used as fuel

"5. Public utilities and domestic consumers now using fuel oil (including gas oil).

"6. Shipyards engaged in government work.

"7. Navy yards.

"8. Arsenals.

"9. Plants engaged in manufacture, production and storage of food products.

"10. Army and Navy cantonments where oil is now being used as fuel.

"11 Industrial consumers engaged in the manufacture of munitions and other articles under government orders.

"12. All other classes.

"Rule 2.—Licensees shall promptly comply with all orders of the United States Fuel Administrator with respect to the delivery of fuel oil, the submission of reports, and other matters proper and necessary to carry into effect the President's proclamation of January 31, 1918.

"Rule 3.—Neither these rules and regulations nor the orders of the United States Fuel Administrator shall relieve any licensee from his obligation to deliver fuel oil which he has contracted to deliver as soon as the prevention resulting from such rules, regulations, or orders shall have ceased to operate and the fuel oil shall be available for delivery under such contracts.

"These rules and regulations shall apply to all licensees heretofore or hereafter licensed under the proclamation of the President dated January 31, 1918, and shall supersede the rules and regulations issued with the approval of the President on that day.

"H. A. Garfield,
"United States Fuel Administrator.
"Washington, D. C., March 19, 1918."

URGES THAT NO MINE CONTRACT ITS FULL OUTPUT

It is the desire of the United States Fuel Administration that consumers obtain their bituminous coal supplies from the usual mining districts unless prevented by the zone districts.

If contracts are made, it is preferred that not more than 65 per cent of a mine's production be contracted for, based on last year's output, leaving the remainder to move on current orders and instructions from the United States Fuel Administration. Large consumers, including railroads, who contract for their fuel requirements, should not contract for more than the foregoing proportion of the output of any one mine or coal mining company.

The closer these suggestions are observed, the less interference there will be with the normal movements of coal and the usual relationships between consumers and producers.

DR. F. C. HONNOLD SELECTED FOR IMPORTANT PLACE

Appointments of a district representative and a number of assistants for the states of Illinois and Indiana were announced by the United States Fuel Administration today.

F. C. Honnold, of Illinois, was named district representative of the Fuel Administration for the two states and will have headquarters in Chicago.

C. G. Hall, of Terre Haute, Ind., was appointed deputy district representative for Indiana and the following assistant district representatives were named:

For Illinois—O. G. Scott, Springfield; P. H. Greenlaw, St. Louis; J. A. Fenelon, Galesburg; T. R. Carty, J. L. Keiflin and Charles O. Ostrom, Chicago.

For Indiana—Jonas Waffles, Terre Haute; C. J. Fletcher, Indianapolis; H. W. Little, Evansville, and Eugene Wardlaw, Brazil.

The district representative and his assistants will represent the Fuel Administration in the coal fields of Illinois and Indiana and will cooperate with the operators, the railroads and the public in delivering and executing the orders of the administration and in the movement of coal.

DR. GARFIELD URGES EARLY BUYING BY DOMESTIC USERS

"We begin the new coal year of 1918-19 with an obligation resting upon every citizen of the United States to do his part," says Dr. H. A. Garfield in a formal statement. "In order that the coal supply of the country may be made adequate to meet the home needs of our people and the ever increasing demands for coal for fuel which grew out of the conflict in which we are now engaged. The Fuel Administration must have the support and the active cooperation, not only of those who are engaged in production and distributionof fuel, but of every coal user in the country. Each must bear his share of the patriotic sacrifice which must be made if the coal supply is to be properly increased and adequately distributed.

"An adequate coal supply is vital to the winning of the war. Without it we cannot make munitions or other war supplies or build the ships which must carry men and materials to the battle front. Without it industries will be stopped, labor thrown out of employment, and the homes of the people will be cold.

"Guided by the experiences of the past winter, the Fuel Administration has taken the necessary steps to clear the way for the ceaseless activity of the mines of the country in increasing the supply, and for the steady, swift distribution of the nations' fuel as rapidly as it can be taken from the ground and moved over our over-burdened transportation systems.

"The prices fixed by the Government for coal at the mine have now been established on a stable foundation which will not be disturbed during the coming coal year, except in cases of extraordinary urgency. These prices have been adjusted by scientific and practical investigation based upon uniform cost sheet reports to insure the greatest possible stimulation of production while maintaining a reasonable and equitable price of coal to the consumer.

"By carefully drawn regulations the Fuel Administration has insured the shipment of 'clean coal' from the mines. Coal containing an undue amount of foreign matter will be penalized in price, and producers who take extraordinary measures in the preparation of their coal will be recompensed. These measures will keep off the railroads and out of the bins of the consumers a large amount of unburnable material which was included in last year's coal production.

"Every effort has been made by the Fuel Administration to so arrange the distribution of the coal supply that it will impose the least possible burden upon the railroads of the country. Through the zone system of distribution, which becomes effective April 1, the movement of bituminous coal between the mine and the producer will be restricted to the shortest possible transportation lines consistent with the maintenance of an adequate and proper coal supply to all consumers.

"In arranging these restrictions, the Fuel Administration, in many cases, has allotted to consuming territory producing fields which can only fill the demand of the consumers they must supply, if production is maintained steadily throughout the coal year. The Fuel Administration expects the coal consumers, continuing their patriotic cooperation with the Government in all its war measures, to maintain a steady and constant demand for coal in order to attain this result. Consumers must buy their winter supply of coal during the spring and summer for storage during the winter if the production is to be maintained at a maximum and the country enabled to avoid a serious coal shortage this winter. The Fuel Administration will cooperate with all communities in an effort to provide storage for emergency stocks of coal to be set aside, during the spring and summer, to meet emergencies of weather and transportation which may arise next winter.

"But the great storage capacity of the country lies in the bins of the individual consumer, and there the country's coal reserve must be built up during the spring and summer when coal production is unhindered and the transportation facilities of the country operating at their highest efficiency.

"As an inducement to 'early buying' the prices of anthracite coal have been reduced 30 cents a ton on all domestic sizes from April 1 to August 31, and, in many of the bituminous fields, prices have been cut to an even greater extent.

"To safeguard the consumer the Fuel Administration has prescribed regulations to prevent profiteering and to govern the distribution of coal by licensed jobbers and by retailers. Each domestic consumer will be permitted to secure a full normal supply of coal, but no more.

"Every ton of coal that is hoarded against future needs and is not used during the winter is actual waste. The labor and transportation used to bring the coal to the consumer, and the actual energy of the coal itself are withheld from doing their part towards speedy victory. Consumers should secure just a little less coal than they believe they need and should make every shovelful give its full value in heat and power. Every shovelful saved means help for the industries in turning out supplies for our troops abroad, help for the ships that must bridge the 3,000-mile gap between our shores and the battle front, and help toward ultimate victory."

To Do Best to Increase Output

With the new coal year the consuming public has been assured that the anthracite industry is doing everything with a view to increasing the output. Urgent calls have been sent out by the operators for more mine workers, in an effort to increase the present army of 153,000 men up to the normal force of 1915, when there were 177,000 mine workers in the region.

Exports to Canada Licensed

Permits have been issued by the United States Fuel Administration to a large number of coal operators allowing exports of coal to Canada. The permits cover the months of April, May, and June.

No export licenses are required for individual shipments of coal into the Dominion, but the allotments, as given in the permits, limit the amount of coal shippers are at liberty to send to Canada during that period.

C. A. MacGrath, Fuel Controller for Canada, with headquarters in Ottawa, by arrangement with the United States Fuel Administration, has been granted considerable tonnage, and he has the privilege, for the period mentioned, to call upon the Fuel Administration to issue permits to any shippers who apply to him.

Allotments of coal to Canada during the past season were upon the same basis as if Canada were one of the states of the Union. While this country exports a considerable tonnage to her sister nation on the northern boundary, Canada also furnishes a large amount of coal to this country. The mines of British Columbia turn out much of the product that is used in the northwestern part of the United States.

Retail Regulations Promulgated

Regulations covering the retail distribution of coal for the coal year of 1918-19, have been promulgated. The plan is designed to secure the most equitable distribution of domestic coal supplies possible. The National Retail Coal Merchants' Association has assured the Fuel Administration of the complete cooperation of its members in carrying out the plan.

The plan, while laying down the general principles which must cover the retail distribution of coal, is held to be sufficiently flexible to allow local Fuel Administrators readily to accommodate the regulations to their local conditions.

Under the plan the Fuel Administration will encourage the purchase and storage of coal and coke for domestic requirements as early as possible. As an inducement to the early purchase of coal for domestic use, a general reduction in the price of anthracite, the bulk of which is used for domestic consumption, will become effective April 1.

Must Perform Service

One of the main purposes of the United States Fuel Administration in adopting the rules governing the licensing of distribution of coal was to give the consumer or retail dealer a definite and specific option as to employing a purchasing agent.

This option, however, must be an actual one. If there is direct or indirect control between the licensee as purchasing agent and the mine owner, no purchasing commission will be allowed.

If the licensee is in a position to dictate the policy of the mine owner so as to prevent him from selling to any consumer or retail dealer who has not employed the licensee as purchasing agent, the presumption will arise that there is direct or indirect control.

The test of control will not be limited to the ownership of a majority of stock.

Licensees are not to be allowed to inject themselves as middlemen in the handling of coal unless their services are required in a bona fide way by the consumer or retail dealer.

Where licensees attempt to obtain the purchasing agent's commissions, unless specifically employed as purchasing agent, it will call for a revocation of their license to engage in the business of distributing coal.

Coke Representatives Named

To facilitate the apportionment and distribution of coke and to assure prompt and equitable allotment of emergency orders among shippers, the United States Fuel Administration has appointed District Coke Representatives in Chicago and Detroit, Michigan. The necessary organization to properly conduct the activities of these subsidiary branches of the Fuel Administration are being established.

J. A. Galligan of Chicago has been named as District Coke Representative for that territory. James A. Ballard of Detroit has been appointed for similar duty in that part of the country.

Somerset Field Enlarged

The United States Fuel Administration enlarged the Somerset field in Pennsylvania when an order was issued adding to it the coal mining operations on the Baltimore & Ohio Railroad and from the Somerset county line to and including Indian Creek and the Indian Creek Valley branch of the Baltimore & Ohio Railroad.

Maximum prices for coal at the mines in the territory described in the order covering this territory are as follows: Run of mine, $2.60; prepared sizes, $2.60; slack or screenings, $2.60.

Groverman Named

The appointment of W. H. Groverman, at Minneapolis, Minn., district representative for the bituminous and anthracite coal supply on the docks of Lake Superior and the western shore of Lake Michigan, to serve as representative of all individual dock companies, has been announced by Fuel Administrator Garfield.

NOT ENOUGH ANTHRACITE TO GO AROUND, FIGURES SHOW

With the Fuel Administration suggesting to the anthracite consuming public that they order their next winter's supply of coal after April 1, the inference should not be taken, says the General Committee of Anthracite Operators, that coal is plentiful now, and that yards are stocked up with it. During the warm season transportation is quickened, but the output cannot be much greater now, with the below normal number of mine workers, than it was during colder weather conditions. A practical answer why coal is scarce can be found from the state population figures taken from the Provost Marshal General's report to Secretary of War Baker on the selective service act of 1917.

The total population of the anthracite burning area, which includes New England, the Middle Atlantic states, and the District of Columbia, is 32,877,609. If merely 25,000,000 of this total would be taken for a basis, it would mean that there would be three tons to every consumer, there having been 77,000,000 tons of anthracite mined in 1917.

Three tons, or 6,720 pounds, makes 672 shovels at 10 pounds for an average. For the 240 days in the coal year, this would mean about three shovelsful per day as the burning quota, for each person, to equalize last year's output.

When it is also considered that this deduction does not include the government coal supply, householders can readily understand why anthracite will continue to be scarce, despite the idea that coal will be plentiful this summer, and that the "stocking-up" process is merely a matter of ordering from the retailer.

The fact should also be noted that the constantly increasing number of war industries in the anthracite burning area, with the larger body of workers, also adds to the growing demand for anthracite in the coming spring and summer seasons now approaching.

Wayne County Prices

Further classification of bituminous coal mines in West Virginia was made recently, establishing new maximum prices for mines in the whole of Wayne county.

The mines affected are a part of the Kenova and Thacker fields. The prices do not include the allowance made to operators for such wage increase as may be applicable under the Washington wage agreement.

The maximum prices fixed in the order are: Run of mine $2.40; prepared sizes $2.65; slack or screenings $2.15.

The former prices were: Run of mine $2; prepared sizes $2.25; slack or screenings $1.75. The order became effective March 5.

TO SPEND $25,000,000 FOR ORDNANCE BASE IN FRANCE

An ordnance base that will cost approximately $25,000,000 is under construction in France and good progress in building is reported. The ordnance base will include approximately 20 large storehouses, 12 shop buildings, 100 smaller shops and magazines and machine tool equipment costing about $5,000,000.

The project includes a gun repair plant equipped to reline more than 800 guns a month; a carriage repair plant of large capacity; a motor vehicle repair plant, capable of overhauling more than 1,200 vehicles per month; a small arms repair plant with a capacity for repair of some 58,000 small arms and machine guns per month; a large shop for the repair of horse and infantry equipment, and a reloading plant capable of reloading about 100,000 artillery cartridge cases per day.

There will be in addition forges, carpenter shops and other auxiliary buildings.

Much of the construction material and equipment have arrived in France and actual construction was begun several weeks ago. Practically all of the essential materials have been contracted for and priority orders issued by the War Industries Board have expedited deliveries.

It is estimated that for the maintenance of the ordnance base approximately 450 officers and 16,000 men will be required. Some difficulty was experienced in obtaining the initial units trained in manufacturing industries.

When it was found impracticable to obtain enlisted men in large numbers and of the required qualifications from the selective draft army, a recruiting campaign was instituted by the ordnance base division and by the first of the year eight thousand men had been enlisted for this special work. The training of technical troops for service with the ordnance base has proceeded satisfactorily and both from the recruited forces, and the selective draft, personnel men will be obtained to operate the immense ordnance base on foreign soil.

Ferret Out Dirty Coal

More than 1,600 tons of anthracite coal were condemned in the Pennsylvania market, by representatives of the United States Fuel Administration recently in connection with the Fuel Administration's campaign to compel the delivery of clean coal.

At the mines inspectors of the Fuel Administration also condemned several cars a day because they were loaded with coal, much of which did not come up to the standard as to size and quality.

PUTS BAN ON NEW INDUSTRIAL PLANTS FOR NON-WAR WORK

The following resolution has been passed by the War Industries Board:

Whereas it has come to the notice of this Board that new industrial corporations are being organized in different sections of the United States for the erection of industrial plants which cannot be utilized in the prosecution of the war; and

Whereas plans are being considered by certain states, counties, cities and towns for the construction of public buildings and other improvements which will not contribute toward winning the war; and

Whereas the carrying forward of these activities will involve the utilization of labor, materials and capital urgently required for war purposes. Now, therefore, be it

Resolved by the War Industries Board, That in the public interest, all new undertakings not essential to and not contributing either directly or indirectly toward winning the war, which involve the utilization of labor, material and capital required in the production, supply or distribution of direct or indirect war needs, will be discouraged, notwithstanding they may be of local importance, and of a character which should, in normal times, meet with every encouragement. Be it further

Resolved, That in fairness to those interested therein, notice is hereby given that this board will withhold from such projects priority assistance, without which new construction of the character mentioned will frequently be found impracticable, and that this notice shall be given wide publicity, that all parties interested in such undertakings may be fully apprised of the difficulties and delays to which they will be subjected and embark upon them at their peril.

IMPORTS OF CHROME ORES ARE TO BE REDUCED

The Committee on Mineral Imports and Exports, representing the Shipping, War Trade, and War Industries Boards, have made recommendations for embargoing importations of Chromite from other countries, except North South, and Central America and the West Indies. This recommendation was made after searching investigation, conferences with the various government departments in Washington, through the Joint Information Board, and after conferences with chromite producers, and consumers, and importers.

"Manufacturers of ferro-chrome will have to use, if necessary, lower grade ores than those to which they have been accustomed," says the committee. "This appears to be perfectly feasible from a metallurgical standpoint, and it will be simply a matter of adjustment of practice. Steel makers can get along with a lower grade of ferro-chrome if it becomes necessary."

LICENSES WILL COVER COAL MOVEMENT OUTSIDE OF ZONES

The United States Fuel Administration will issue permits for the shipment of coal for special purposes to points outside the zone in which the particular coal desired originates. The purpose of this zone plan is to save transportation by the elimination of unnecessary long hauls and avoidable cross hauls, thereby conserving the car supply and increasing car utility. This should result in an increased production of coal.

The zones apply only to bituminous and canned coals and do not apply to anthracite coal or coke. Embargoes under this zoning plan will affect shipments of coal in any class of car equipment and will be put into effect jointly by the United States Fuel Administrator and Director General of Railroads on April 1.

It is recognized, however, that some consumers will require, for illuminating or producer gas, by-product coking, metallurgical, smithing or other particular purposes, special colas which are not produced in the coal districts from which the zoning plan permits shipments to be made. Such requirements will be cared for by permits, issued by the United States Fuel Administration upon proper evidence that request for such permit is warranted.

Application forms may be obtained from the United States Fuel Administration and applicants should be governed by the following instructions:

All applications for permits must be addressed to the United States Fuel Administration, Coal Zone License Bureau, Room 6209, New Interior Building Washington, D. C.

Applications must be made by the consumer stating in detail the necessity for the special coal and amount required during the period for which permit is requested.

In the case of a consumer having more than one plant or requiring special coal from more than one producer, separate applications for permit will be required for shipment from each producer as well as to each plant.

Separate applications for permits will be required for each railroad on which shipments originate.

Permits are revocable at the discretion of the United States Fuel Administration.

Anthracite Industry's Safety Work

The bettering of safety devices in and about the mines for the protection of the mine workers with attendant fewer fatalities, has come to the attention of the United States Army medical officers who are now making a tour of inspection in the Lehigh region, and taking close-hand observations of the first-aid-to-the-injured methods as performed by the employees of the anthracite industry.

Resolutions Passed by the Northwest Mining Convention, Feb. 11-17, 1918.

Whereas, we are reliably informed that the Government, for the purposes of settlement of adverse trade balances, for the assistance of our Allies and for other urgent Government needs, has in contemplation the introduction of a bill providing for the withdrawal of a considerable part of the reserve of silver now standing behind United States Silver Certificates in circulation and the temporary withdrawal of the said certificates under a plan whereby the Government proposes purchasing silver at the fixed price of one dollar per ounce for its immediate needs and for the replacement of silver so withdrawn from the Treasury until the silver withdrawn, as hereinbefore stated, shall have been completely replaced, and

Whereas, it is the desire of the silver miners of the West to cooperate with the Government in any plan which, at this time, may be found necessary to the successful conduct of the war, having in mind, however, that the real interests of the Government will not be served unless the prices fixed for the products of its mines be sufficiently high to maintain production to that point where the present and future needs of the Nation and its Allies will be properly cared for. Therefore be it

Resolved, That this Conference of the Northwest Mining Association, held at Spokane, the 14th day of February, 1918, does hereby endorse the proposed plan of the Government, hereinbefore stated, and pledges its cooperation in securing such legislation as may be necessary to make the said plan effective, and

Resolved further, That a copy of this resolution be forwarded to Mr. J. F. Callbreath, Secretary of the American Mining Congress, Washington, D. C., with instructions to bring the same to the attention of those who may be instrumental in its accomplishment.

Chas. A. Gram,
Chairman Committee on Resolutions.

Whereas, the Government reports concerning mines and mining are often insufficient to meet the immediate needs of persons or corporations desiring data regarding certain phases of mining operations, costs of production, etc. Be it

Resolved by the Conference, that the American Mining Congress be requested to establish a Bureau of Economics for the purpose of assembling from federal, state and private sources, statistics, cost, transportation, history, etc., of every phase of mining, including oil and gas, and to classfy and promulgate such information for the assistance of the Congress of the United States, intending investors and publishers.

Chas. A. Gram,
Chairman Committee on Resolutions.

Whereas, the War Minerals Committee has recently advocated the initiation of a bill proposing to place mines and mine operation under Federal control, and

Whereas, such proposal was not based upon the actual conditions as they exist in the states where metal production is an established and important industry and which conditions would have been known by the War Minerals Committee through inquiry, and

Whereas, there is a present tendency in legislation to ignore the rights and requirements of those who have invested millions of capital and years of labor in the upbuilding of the mining industry. Therefore be it

Resolved, That the Northwest Mining Association in Convention assembled does hereby declare its protest against any proposal for the introduction or consideration of any legislation which in any way would aim to place the control of mines producing gold, silver, copper, lead, zinc or other metal or minerals under Government control, unless there should develop an actual shortage in the production of such minerals, that in the opinion of this convention there does not now and from existing evidence probably will not exist, any such shortage which cannot be overcome by reasonable cooperation on the part of the Government in the matter of transportation and through some methodical stimulation of the production of gold and silver. Be it further

Resolved, That we endorse the request of the American Mining Congress that the Government encourage by subsidy, direct and indirect, the production of such rare metals as molybdenum, tungsten, manganese, chromium, pyrites, potash and nitrates as a measure of war and to place these metals upon a permanent basis of production.

Chas. A. Gram,
Chairman Committee on Resolutions.

Whereas, the production of metals, both rare and commercial, coal, oil and gas are of vital importance in the development and stabilizing of commerce in the United States, and

Whereas, these wasting industries demand technical well-trained and highly efficient management under especially established laws and regulations, and

Whereas, the mining industry in all its phases constitutes the greatest collective industry in the United States because of the fact that it furnishes the sinews of the war and the strength of the nation in peace. Be it

Resolved, That it is the sense of the Northwest Mining Association that this great industry should not be subject to the rulings and decisions of a subdepartment or any group of sub-departments of the Federal Government, but should be under the executive control of a department of mines whose executive head should be a member of the cabinet of the President of the United States.

Chas. A. Gram,
Chairman Committee on Resolutions.

Resolved, that the Northwest Mining Association in Convention assembled extend to the American Mining Congress a vote of appreciation for its labors in behalf of the mining industry and pledges its unqualified support in national work. Be it further

Resolved, That the Board of Directors of this Association be authorized to appropriate a sufficient sum either from the treasury of the Association or otherwise, for the purpose of making this Association an annual contributing and cooperating member of the American Mining Congress.

Chas. A. Gram,
Chairman Committee on Resolutions.

Resolved, That we unqualifiedly and strongly approve the Walsh-Pittman bill in so far as it provides for throwing open to entry and patent the mineral lands in public domain heretofore withdrawn from entry, but that we unqualifiedly condemn and disapprove said bill in as far as it provides for the leasing system for mineral lands on the public domain.

Chas. A. Gram,
Chairman Committee on Resolutions.

Resolved, That in the opinion of the Northwest Mining Association, H. R. 8761, introduced by Mr. Kelly of Pennsylvania, January 16, 1918, embraces provisions that are incompatible with the successful conduct of mining operations, and subversive of fundamental business principles, therefore, this Association hereby respectfully petitions and prays the Senators and Congressmen of the 65th Congress to reject all bills of like tenor.

Resolved, That copies of this resolution be sent to the Senators and Congressmen of the Pacific Northwest States.

Chas. A. Gram,
Chairman Committee on Resolutions

The Anaconda Copper Company will construct a plant at Great Falls, Montana, which it is estimated will release 50,000 tons of shipping now carrying manganese to this country from Brazil. President Ryan of the Anaconda Company says that shipping thus released would be capable of carrying 300,000 tons of food and material annually to Europe for our armies.

PERSONALS

The Huff Electrostatic Separator Company, owners and manufacturers of the Electrastatic Process of ore concentration, has opened an office at 120 Broadway, New York City, for consultation regarding ore dressing problems, especially the dry concentration of ores and the separation of valuable minerals from others which are commercially detrimental.

The Worthington Pump & Machinery Corporation has changed the personnel of its organization as follows: James E. Sague, vice-president in charge of engineering and manufacturing; Leon P. Feustman, vice-president in charge of general commercial affairs, including contracts, prices, purchases, traffic, etc.; Frank H. Jones, vice-president in charge of sales; William Goodman, assistant to vice-president; William Schwanhausser, chief engineer; Edward T. Fishwick, general sales manager, and Charles E. Wilson, assistant general sales manager. C. Philip Coleman is president of the company.

Arthur Lewis, formerly of the G. B. Mark's Company, has been appointed to the position recently left vacant through Douglas Bunting's promotion to Division Superintendent of the Lehigh & Wilkes-Barre Coal Company.

A. Scott Thompson of Miami, Okla., will be in Washington for several months looking after the interests of the lead and zinc operators of the Miami district

John D. Clark of Cheyenne, Wyo., is again in Washington.

Judge J. J. Shea of Tulsa, Okla., was in Washington the greater part of March.

Harry L. Day and Jerome Day of Wallace, Idaho, are in the East.

C. M. Roehrig of Ashland, Ky., was in Washington during the month looking after the interests of the coal people of Eastern Kentucky.

William M. Conrad, assistant secretary of The American Mining Congress, after spending several weeks at the Washington headquarters, has left for southern territory. Mr. Conrad will establish headquarters in Louisville, Ky., and will devote his entire time to the assistance of the mining industry of the South.

Jerome J. Day, who has been in the East, was unexpectedly called to his home at Wallace, Idaho, on matters of important business.

The Division of Conciliation, of the Department of Labor, announces the adjustment of 24 industrial disputes in various sections of the country since March 1. More than 50,000 workers were directly and indirectly involved.

Thirty thousand acres of coal land in Harlan County, Ky., have been taken over by the Frick interests, who announce that they will expend $9,000,000 in its development. A modern town will be built. They expect to produce 10,000 to 12,000 tons of coal per day.

A luncheon was given by Director Manning, of the United States Bureau of Mines, on March 25, at which was discussed the ways and means for developing the rare metals industry of this country, to meet the conditions created by the war. Those present included: Franklin K. Lane, Secretary of the Interior; Representative Martin D. Foster, Chairman of the House Mines and Mining Committee; H. C. Hoover, Food Administrator; Sidney Jennings, President American Institute of Mining Engineers; J. F. Callbreath, Secretary The American Mining Congress; George Otis Smith, Director of the Geological Survey; Senator C. B. Henderson, Pope Yeatman, W. Y. Westervelt, C. M. Wooley, E. F. Gay, C. W. Goodale, A. G. White, C. K. Leith, E. C. Bradley, Sidney Mudd, Bradley Stoughton.

Franklin W. Merritt, of Minneapolis, Minn., was in New York and Washington during the month. William Pascoe, superintendent of Mr. Merritt's properties, was with him.

George H. Crosby is at Duluth again after spending several months at Pasadena, Calif.

J. F. Robinson, of Miami, Oklahoma, was a recent Washington visitor. Mr. Robinson is president of the Commerce Mining and Royalty Company, the largest lead and zinc mining company in the Miami-Joplin district. He and his associates were the pioneers in the New Miami field, and much credit should be given them for the present state of development of that field.

W. G Swart, whose headquarters are in Duluth, but who has been spending the greater part of his time traveling from Duluth to Everywhere, on a recent visit to the headquarters of the American Mining Congress, advises that he has seen so little of his family or friends recently that he has christened his "private" car (for which he pays the nightly sum of $2.50) as "Hello" going West, and "Good-bye" coming East. Mr. Swart is the manager of one of the largest low-grade iron ore deposits in the United States.

J. H. Holmes, Jr., president of the Tungsten Products Co., of Boulder, Col., was in Washington during the month.

A statement recently given out by the National Educational Association, says that there are 33,000,000 persons of foreign origin in this country, 13,000,000 being of alien birth. Five million do not speak English, and there are 2,000,000 illiterate, 3,000,000 unnaturalized males of voting age, and 3,000,000 alien males of military age.

Douglas Bunting has been appointed General Superintendent of the Wyoming Division of the Lehigh & Wilkes-Barre Coal Company.

Victor Rakowsky, of Joplin, Mo., is again in Washington.

Immigration to this country for the fiscal year, ended June 30, is indicated at 100,000, against nearly 300,000 for the previous year.

Petroleum Production Increases

Official returns indicate a gratifying increase in petroleum production between January and February, 1918, in all fields except Oklahoma, Kansas, Central and North Texas, Gulf Coast, and Rocky Mountain, which suffered a slight decrease. Compared with February, 1917, substantial gains were made last month in all areas of oil production outside of the Lima-Indiana and Illinois fields, which have been steadily declining for several years.

Except in the Appalachian, Illinois, and Gulf Coast fields, the demand for crude petroleum by refiners and other consumers in February, 1918, exceeded both the current production and, excluding the Rocky Mountain field, the quantity used in January, 1918.

Petroleum reserves were correspondingly reduced in February, 1918, in all fields where the demand was greater than the current production. At the end of February, 1918, the quantity of storage oil in the United States was materially less than at the end of February, 1917, except in central and north Texas, where a moderate addition to stock was made, according to J. D. Northrop, of the Geological Survey.

EFFECT OF PATENT

A patent for a mining claim within the jurisdiction of the Land Department is the judgment of that tribunal upon the evidence before it that the patentee is entitled to the mining claim therein described and the conveyance of the legal title to him. The validity, the extent, and the boundaries of the claim, are unavoidable issues which that tribunal must adjudge in sustaining any part or all of the claim and in such case the adjudication of matters within the jurisdiction of the Land Department are not subject to collateral attack, but can be avoided only by direct suit for that purpose on the ground of fraud or error of law.

Conkling Mining Co. *vs.* Silver King Coalition Mines Co., 230 Federal, 553, p. 558.

(*Continued from page 5*)

Electric Railway Equipment Company	**27**
Egyptian Timber Company	**21**
Elmore, G. H.	**29**
Equitable Powder Company, The	**10**
General Briquetting Co., The	**41**
General Electric Company	**7**
Goodall Brothers	**37**
Goodin, Reid & Company	**8**
Goodman Mfg. Company	**6**
Goodrich Rubber Co., The B. F	**21**
Granville Supply Company	**35**
Hazard Mfg. Company	**14**
Hercules Powder Company	**11**
Hockensmith Wheel & Mine Car Co	**27**
Hoffman Brothers	**37**
Holmes & Bros., Inc., Robert	**16**
Hunt & Company, Robert	**33**
Illinois Zinc Company	**33**
Indiana Laboratories Co., Inc., The	**37**
International High Speed Steel Co.	**4**
Irvington Smelting & Refining Works	**33**
Jeffrey Mfg. Company, The	**Cover**
Koering Cyaniding Process Company	**23**
Laubenstein Mfg. Company	**35**
Ledoux & Company, Inc	**33**
Leetonia Tool Company, The	**35**
Lehigh Coal & Navigation Co., The	**42**
Longyear Company, E. J	**33**
Machinery Warehouse & Sales Co	**41**
Macomber & Whyte Rope Company	**14**
Manhattan Rubber Mfg. Company	**19**
Marioneaux, Stout & Beck	**37**
Monongahela Wood Preserving Co.	**35**
Morse Chain Co	**Cover**
Mudd, Seeley W	**37**
Nicholson & Co., W. H	**37**
Ohio Brass Company, The	**25**
Ohio Grease Company, The	**31**
Pacific Tank & Pipe Company	**31**
Payne, Henry Mace	**37**
Phelps-Dodge Corporation	**33**
Phillips Mine & Mill Supply Company	**18**
Pitkin, Lucius, Inc	**33**
Pneumelectric Machine Co., The	**16**
Professional Cards	**37**
Prox Company, The Frank	**29**
Quaker City Rubber Company	**19**
Randle Machinery Company, The	**35**
Richards, J. W	**37**
Roebling's Sons, John A	**14**
Ruhl & Stewart	**37**
Springer, Andrew M	**17**
Standard Scale & Supply Co., The	**13**
Stephens-Adamson Mfg. Co	**20**
Taylor, Samuel A	**37**
Thorne, Neale & Company, Inc	**42**
Tou: & McCarthy	**37**
Union Electric Company	**23**
Vulcan Iron Works	**8**
Western Chemical Co	**37**
West Virginia Rail Company, The	**35**
Wier Frog Co	**25**
Wilmot Engineering Company	**35**
Wood Equipment Company, The	**6**
Worthington Pump & Machinery Corp.	**12**
Wyoming Shovel Works	**3**

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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

FOREIGN TRADE DEVELOPMENT

"Unless we continue to develop our foreign trade after the war, we can have no enduring prosperity." This statement, by Chairman Hurley, of the Shipping Board, should be given careful consideration by every American. At this time the winning of the war is the great question and every possible energy should be bended to that task. Having done all of those things which we can do in this behalf, we should next fix our attention upon the fact that after we have won the war, of which there can and must be no question, we shall then be confronted with the serious question of paying the war debt, which cannot be other than gigantic. It was not many years ago when politicians summed up all convincing arguments against the party in power with the phrase "A Billion Dollar Congress." The interest upon the war debt, after the war is over, will be at least a billion dollars yearly. This only to pay interest with no provision for meeting the principal. To meet these obligations our people must be more productive than ever. Our industrial plants must work with a greater efficiency. We must command more markets in order that our greater efficiency may find an outlet for its product and at a price which will provide the wages, which our higher standards of living will require. The United States is a country of wonderful productive capacity and of untold natural resources. These have formed the basis of its wonderful prosperity. We must dispose of our surplus production in foreign markets in order to find full employment for all industrial agencies.

THE LAW TO PROMOTE EXPORT TRADE

A law to promote export trade, embodied in the act known to the public as the Webb Bill, was signed by the President on April 10. Idolatrous worship of the principles of the Sherman Anti-Trust Law has held this country for many years from the enactment of this measure.

It has taken a world war to demonstrate the absolute necessity of a coordination of all the forces of production in order to enable the nation to act with effect in a crisis. The great productive capacity of this nation, associated with its wonderful natural wealth, has made it possible for us to succeed in spite of extravagance, wastefulness and inefficiency. So long as new wealth in fabulous sums could be created by the development of mineral resources, we have been able to waste and still prosper.

In spite of ruinous competition, in spite of wasteful methods, in spite of vast, expensive, and frequently useless agencies, we have been able to conduct our domestic business with a degree of success, the consumer being able and being required to pay a price which would cover the cost of this wastefulness.

In foreign trade, however, where the competition was with highly efficient agencies, our exporters have felt the need of combination in order to meet the highly centralized organization of foreign competitors.

The Webb bill is designed to remedy this situation and declares to be legal:

> An association entered into for the sole purpose of engaging in export trade and ac-

tually engaged solely in such export trade, or an agreement made or act done in the course of export trade by such association, provided such association, agreement, or act is not in restraint of trade within the United States, and is not in restraint of the export trade of any domestic competitor of such association; And provided further, That such association does not either in the United States or elsewhere, enter into any agreement, understanding, or conspiracy, or do any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein.

Amend the Sherman Law

It has been contended by many good lawyers that practically all of the powers granted by the Webb bill existed without its enactment, and that the Sherman law never did intend to restrict combinations with respect to foreign trade. It is to be hoped that under the provisions of this bill much of good will be accomplished, although it is difficult to understand how any article, of which this country produces the principal part, can be sold in foreign markets at prices in excess of the domestic price plus charges for transportation and exchange. The foreign user of such commodity would seem likely to buy in American markets and import his own goods, unless the price in the foreign market is such as to make importation unprofitable.

MINING CONGRESS JOURNAL fully believes that the Government of the United States should not part with those mineral products of which it owns the greater part of the world's supply, without an adequate price. It believes that Europe can well afford to pay, in normal times, 25 cents per pound for its copper, and that this country should not part with its supplies of this character without receiving their real worth to the foreign country, in the development of its industries. The United States has sold in the London markets silver which has been coined into rupees by the British government at a seigniorage profit of more than fifty millions of dollars. This seigniorage now constitutes a gold reserve in the Treasury of the British government. That fifty millions should have been paid to the silver producers of the United States or else should have been paid into the United States Treasury.

The United States has furnished copper to foreign nations at a price only slightly above the actual cost of production, without assuming that the deposits possess value. The great value to a nation of the possession of mineral resources has never been more strikingly illustrated than during the present war. The Sherman Anti-Trust law should, years ago, have been so modified as to permit, under government supervision, such business combinations as would permit the most complete industrial development, just such an industrial development as the present world emergency requires.

As proof of the value and necessity of this course, the Government has now taken over the railroads of the country and is applying trust methods to their management. The Government is now demonstrating that great combinations are the most efficient agencies for meeting world requirements. The Government has forced coal operators to act in combination in a way that a few years ago would have rendered them all liable to the penitentiary. MINING CONGRESS JOURNAL believes that a reasonable competition is and always will be necessary to the highest efficiency, and that the best results can only obtain by bringing to bear the trained judgment and ability of the men who understand each particular line of business, applying the restrictions of government only to the extent that such supervision is necessary to protect weaker competitors in the race.

The Sherman law should not be repealed, neither should it be a fetich so adored that any discussion of a modification of its provisions should be considered treasonable. Congress may well consider means by which business agencies of this country in the after-war period may be permitted to so cooperate as to secure the highest efficiency. Competition in the world markets will be unusually severe after the war is over. To meet these conditions the highest efficiency is essential, and every legal restriction to the most complete coordination of productive forces is extremely unwise and dangerous.

THE WAR MINERALS BILL

After an extended debate in the House of Representatives the Foster War Minerals Bill, as amended, was passed by a substantial majority. In another column of this issue appears a condensed statement of the discussion and the amendments. Hearings are in progress before the Senate Committee on Mines and Mining, of which Senator Charles B. Henderson, of Nevada, is chairman.

Before the Senate Committee a bill intended to be a substitute for the Foster bill, but covering the same subject matter, is also under consideration. This bill eliminates the price fixing and licensing provisions, authorizes the payment of a bonus for early production, and the advance by the Government of 50 per cent of the cost of construction and development work, to be secured by a lien upon the whole property and to be repaid out of the minerals to be produced, for which the Government has entered into a contract for purchase.

The Mining Congress Journal believes that this bill carries all of the authority which is essential in order to accomplish the purpose for which the bill was intended. The Government is in great need of manganese, chrome, pyrites, and some other of the rarer metals which heretofore have been imported from foreign countries and of which the imports are now prevented by the taking of the ships engaged in these importations for use in the foreign service. The law of supply and demand has been more or less abruptly abrogated by cutting off the usual supply which creates the necessity for the immediate development of productive machinery with which to meet this unnatural shortage. These minerals must be secured even though the price may be grossly abnormal.

Steel required for ordnance cannot be manufactured except by the use of certain ferro alloys; manganese, tungsten, molybdenum, vanadium, and other of the rare metals are an absolute necessity in order that the war may be prosecuted with effect. It is equally necessary that sulphuric acid shall be available for the manufacture of explosives and that potash shall be available for agricultural purposes in order that the food supply of our Army may be kept intact. An unusual situation requires the immediate production of many of these rarer minerals which, in most instances, must be preceded by costly construction and expensive development work.

Government aid is essential because of the fact that industries which could not exist in pre-war times will not be able to prosper in the after-war period with the same competition from foreign sources which prevented the pre-war operation. It is, therefore, essential that whatever expense shall be incurred in the construction of the facilities for the early production of these minerals must be amortized during the war period. No one can say what the tariff policy of the Government will be after the war. It might easily be that a tariff which will so protect some of these industries as to enable them to exist in ordinary times would be unwise from every standpoint. This is a question which cannot be determined at this time. This fact is that at this time, no matter at what cost, the immediate development of facilities for the production of these articles is the great necessity.

This does not mean that it requires government operation or government control, but only that conditions shall be created under which private enterprise can meet requirements. The Mining Congress Journal is flatly opposed to every governmental effort which can be exercised by individuals efficiently. It believes that the governmental function ends when it has created conditions under which private enterprise can best produce and supply its needs.

If the Administration, provided by this bill, shall call for estimates of the probable cost of furnishing these minerals in required quantities and shall make contracts with the lowest responsible bidders, it will put in operation the most effective machinery for the production of these required articles. At the same time it will create facilities which may be able, in the future, to make this country independent of all foreign countries. Possibly without tariff protection and possibly with a small protective tariff, but in any event, under the direction of those individuals whose own money is invested in the enterprise, and who must, in order to make a profit, so direct their efforts as to create at the smallest possible cost and with the most complete efficiency.

PUBLIC OWNERSHIP AND OPERATION OF COAL MINES

Bleeding Kansas was at one time spoken of with much sympathy by those who commiserated its situation. Bleeding Kansas has recovered and is now one of the most prosperous productive and independent States of the Union. Massachusetts has qualified as a proper successor to the old-time reputation of Kansas by a resolution recently passed by its State Legislature favoring the public ownership and operation of coal mines of the country. The resolution is, in part, as follows:

> Whereas the inhabitants of this commonwealth (Massachusetts) have suffered severely from the exactions of the present operators of the coal mines, who have frequently driven their employees to desperation by their inhuman treatment, have failed to provide sufficient coal when it was greatly needed by the public, and have charged exorbitant prices for such coal as has been procurable; and, whereas it is the opinion of the General Court of Massachusetts that public ownership and operation of coal mines would be of great advantage to the citizens of this commonwealth. Therefore, be it resolved, "That the Senators and Representatives from Massachusetts in Congress are hereby earnestly requested to make every proper effort to secure the quick passage of the legislation aforesaid, etc."

This resolution was adopted March 26, 1918, after ten months of government control of the coal production of the country. Is it possible that the members of the Massachusetts Legislature have not yet been advised that the price which coal operators might receive for their coal was fixed by presidential order many many months ago? Can it be possible that the members of the Massachusetts Legislature do not know that the greater part of the cost of coal to the consumer in Massachusetts is made up of transportation and selling charges, and that only a small part of the price which they pay reaches the pocket of the operator? Can it be that members of the Massachusetts Legislature do not know that wages paid to coal miners in this country is larger than in any country in the world, and, at the same time, the price received by the operator for coal is less than in any country in the world? It may be that these facts were known, but it is more than likely that its members were relying upon the general misinformation of the public with relation to the coal mining industry, and undoubtedly its information concerning treatment of the men engaged in the coal mines by their employers was gained from the report of the Federal Industrial Commission, whose chairman is unable to see any virtue in a coal operator nor to discover any shortcoming in any miner.

The fact is that the coal miners of the United States receive higher pay for shorter hours than anywhere else in the world; that coal is sold at the mines in this country more cheaply than anywhere else in the world; and this notwithstanding the fact that we are using more coal proportionately than any other people in the world; and that we are doubling the production and consumption every ten years.

The Massachusetts Legislature did not appreciate the fact that at the beginning of the war the bituminous coal industry was on the verge of bankruptcy. That because of low prices the machinery of coal production had deteriorated, and that even with the strain upon it, occasioned by war demands, it was able to produce more coal than the country could possibly consume. Massachusetts did not store coal as usual because it hoped to get cheaper coal later, and when the demand of cold weather came the railways could not transport rapidly enough to meet a demand theretofore largely met from storage supplies. Even with those conditions the price of shoes to the Pennsylvania coal miners increased at least 100 per cent more than the price of coal to the Massachusetts shoe manufacturer. The vagaries of Bleeding Kansas are being eclipsed by the foolishness of a brainless Massachusetts Legislature.

ARBITRATE

There is a lesson for labor in the war. Germany refused to arbitrate. She struck. And her appeal to force—to might instead of right—has drenched the earth in blood and put so huge a burden on generations yet unborn that imagination quails and falters before mere contemplation of it.

This is no time to adjudicate the merits of open shop vs. closed shop. Justice to labor will be done—is being done—in most trades and avocations in full measure. No question can arise that will not be more fairly settled through arbitration, negotiation, and agreement than through appeal to the strike or the lock-out.

Our men "Over There"—flesh of our flesh—in first-line trench, are offering their all, while, safe at home, many are quibbling over details of working conditions and pay for service necessary to make effective the presence of our soldiers at the front.

No man or body of men, in the present temper of America, need hesitate to rest the equity and justice of any issue with those departments of the Government charged with the responsibility of deciding it.

One question—only one—overshadows all: We must win the war. Nothing else matters.—Editorial, The Engineering and Mining Journal.

JOHN D. RYAN

The appointment of Mr. John D. Ryan as the head of the Aircraft Construction Board gives promise that efficiency will be brought to that branch of the service and that things will actually be done. Heretofore, we have received many promises and indulged in much grandiloquence as to the results which would be obtained as soon as our enormous fleet of airships should be on the French fighting line. From this time on it may be counted as a certainty that so far as the construction of airships is concerned there will be no more of foolishness and no more of eloquence, but much in the way of actual performance.

THE MINERAL LAND LEASING BILL

The Public Lands Committee, of the House of Representatives, has for weeks been holding daily hearings upon the Mineral Land Leasing Bill, S. 2812, H. R. 3232, wrongly entitled, "A Bill to promote the mining of coal, phosphate, oil, gas, and sodium on the public domain." As understood, the bill proposes to establish a new system to take the place of the system through which the West has developed, by which the discoverer of mineral upon the public domain was permitted to take patent for a limited area. MINING CONGRESS JOURNAL still believes that the principles involved in the bill are wrong, that the bill will not promote development, and that its enactment is a blow at one of the fundamental principles of a Republican government, viz., the principle of home rule. Notwithstanding this, we favor the enactment of this bill, with the most liberal provisions, so that it may permit, if it does not promote, development. The Land Leasing bill, passed more than three years ago, did not promote and has not permitted coal production in Alaska.

The fact that oil and gas wells are more quickly exhausted than mines makes the application of the leasing system to oil and gas production seem more reasonable than applied to mineral production which requires many years of operation in order to justify development.

The principal contention before the House Public Lands Committee, has related to Sections 16 and 17 of the Senate bill, known as the Relief Sections. Judge Tulley Scott, of the Supreme Court of Colorado, made a most telling appeal to the committee that the Government should not stultify itself by dealing with its pioneer citizens in the manner of Shylock, but that it should treat its citizens with the fairness which it requires of citizens in their dealings with each other.

Judge Scott reviewed the development of the mining laws of the country, and pointed out with great clearness the iniquity of asking a citizen to take less from the Government than was offered to him, as an inducement for the intensely speculative investment involved in the development of minerals upon the public domain. The writer agrees with Judge Scott that the honor of the Government to which he gives his unlimited loyalty is of far greater importance than any question of title to an infinitesimal section of the public lands.

Any law which undertakes to deprive an humble citizen of the reward which induced his efforts, and for which he has given the consideration is unworthy of a great government. It is because of the hope that the leasing bill will do justice to men who would otherwise be deprived of such right, that we lay aside our objections to the leasing principle, and hope for the passage of a fair, equitable leasing bill.

INCREASED SERVICE, THE GREATEST WAR NEED

This country is withdrawing two million men from industrial service to take their places at the front. It is stated that it requires four men at home to maintain one man at the front. A large percentage of these men are to be engaged in the production of food and supplies and the transportation of these materials to the point of use. We hear frequent statements to the effect that factory workers are needed for the farm, and that farm workers are needed for the factory, that mine workers are being withdrawn to help build powder plants, and that different governmental bureaus are competing with each other and with the privately conducted industries of the country for help. An increasing wage is inevitable and desirable under the circumstances. With this it is frequently stated that there is a decrease in efficiency. Organized labor demands that there shall be no increase in the working day, and that all labor conditions existing before the war shall be maintained. We have no criticism of this, except as it interferes with the nation's ability to provide munitions and supplies for the boys at the front, and to supply the necessaries of life for our people at home. It is hoped that this war may be brought to an early conclusion. It is not generally believed that it will be. We have a right to assume that a long, bitter struggle is ahead in which this nation, through its industrial agencies, must reach the very highest limit of production. MINING CONGRESS JOURNAL believes in the eight-hour day. It believes in the highest wages and the best possible conditions for the working men of the country. It believes that in times of war when the slacking of production means great loss of life at the front and great suffering at home, that it is almost treasonable for any man to stand for the rights of labor when that stand interferes with the production which is necessary to maintain our best efforts. Our farms need all the help available, and they need to work as long as daylight will permit. Our factories need all the help available, and they need to work as long as human endurance can safely permit. Our mines and our transportation systems need more men. The men who are available must work to their limit, and unless all of these agencies do more than is expected in ordinary times until our great foe is vanquished the cost will be greatly increased, the loss of life will be increased, duration of the war will be increased, and the burdens which labor must bear through all times to come will be increased. This is no time for slackers.

RAILROAD COAL

Perhaps no one agency has done more during the years that are past to disorganize the bituminous coal mining industry than the railroad companies. It is a notorious fact that the railroads have purchased their coal at a lower price than other large consumers, and very much below the price at which it was sold to the smaller consumers throughout the country. Perhaps no one agency was better equipped to disorganize the bituminous coal industry than the purchasing agents of the railroads. Contracts were frequently so one-sided that the coal operator had little choice than to furnish coal to the railroad which served his mine, at the price fixed by this railroad purchasing agent. The railroad contract was frequently necessary to the average bituminous coal operator in order to keep his mines in operation. Contracts were frequently taken at less than the cost of production because it was believed necessary as the price of proper railroad service.

There will be those who will dispute this statement, but there was a general understanding that the mine which failed to meet the railroad demand for cheap coal was likely to have very much difficulty in securing the cars which were necessary to keep his mine in operation. The natural competition between operators to secure the big orders through which a large tonnage might keep down the overhead charge, was sufficient in itself to hammer down prices to the lowest point, and when to this advantage was added the fear that cars might not be available for the output of the mines and that the competitor who did take the railroad order would be specially favored in the distribution of cars, the conditions became intolerable.

One of the good things which is likely to come out of the present government administration of railroads and coal mines will be an adjustment of this condition. There can be no excuse for a condition which requires any producer to sell his output at less than cost plus a fair profit. The Wall Street Journal very pertinently says:

"If the practice which the railroads have heretofore followed, of preferring operators under contract to them for locomotive fuel in the distribution of empty cars for loading, it should be instantly remedied."

There should be no objection to permitting the railroads to get the advantage of the wholesale orders which they are in position to place, but the gentleman's agreement which can easily be created among railroad purchasing agents should be met upon the other side with an equally comprehensive agreement among those operators who are competitors for these orders. Favoritism in the distribution of cars should have no part in the making of such contracts, and should be punished severely in every instance. If Federal control now being exercised over the railroads and coal mines shall result in the stabilizing of these conditions and insuring to each operator who manages his mines efficiently and economically a fair profit upon his production, it will have done much toward stabilizing a great industry, the importance of which is for the first time becoming apparent to the American people.

It is somewhat amusing that the War Industries Board is now being much agitated because of the apparent necessity of a payment by those roads of the price fixed by the Fuel Administration to be paid by other consumers. This will amount to from thirty to fifty million dollars more for their supply of coal this year than was paid last year. The railroads of the country consume about one hundred and seventy-five million tons annually of bituminous coal. Any delay in making contracts for this production will create a serious restriction on the operation of the mines. For the railroads administration now to use its superior grounds of vantage to make contracts at less than the price fixed by the Fuel Administration would create a situation absolutely without justification.

AFTER WAR INDUSTRIAL PROBLEMS

A recent article in Leslie's Magazine by Norman Hapgood falls into an error scarcely to be expected from an intelligent independent writer. Mr. Hapgood outlines the two most important parts of the problem of reconstruction after the war as follows:

> 1. What part in the industry is to be taken by the state?
>
> 2. What is to be the relation of capital to labor?
>
> Number two is the more important. Under it the most important subdivision is this: Is labor to have a partnership in the industry and joint control with capital?

Without doubt the most important question to be involved in the problem of industrial reconstruction after the war, is the relation of capital and labor. It seems lamentably unfortunate that a serious writer should for a moment justify the possibility of labor having a joint control with capital.

First, such control would be manifestly unjust in that it proposes to take from those whose efforts and privations in the past have made an accumulation and divide its earnings, with those who in times past have wasted or enjoyed the fruits of their labor. The successful conduct of business enterprises require that capital shall control its own, leaving labor to demand from capital, that return which is fair and just. Labor which desires control and is willing to assume responsibility is entitled to establish and create its own capital and control its own enterprise. Most capital has been thus accumulated and this opportunity is still available to all.

Second, such control would inevitably prevent the effective application of labor to the task of production. The use of machinery and the manufacture upon a large scale which is essential to cheap production, necessitates executive control; that control must be single, it must be positive and it must be vested in one more or less conversant with all of the machinery of production, transportation and exchange. To allow a thousand workmen to undertake control of a business enterprise would be about as successful as the Russian Government is under the direction of the Bolsheviki. To allow labor to have joint control with capital in the control of business enterprises would so impair its productiveness as to take from labor many if not most of the luxuries which it now enjoys.

Third, to give labor the right to joint control in the management of capital is to assume that there is no such thing as right in property. It reaches to the very foundation of our civilization. To grant this right would destroy all incentives to progress and would tend to reduce the highest standard to the lowest level. It would tend to undermine the foundation of government. Government must act through its own agencies; to support these agencies requires an income. Incomes are secured by the Government, through the powers of taxation; taxation applies itself to property; without property there would be no income for the support of the Government, and the whole system would fall. After the present day needs are met, the incentive to all industrial activity is future accumulation. The scientist may work for the love of his work, but all other efforts are for the accomplishment of a purpose and the securing of an advantage otherwise unavailable. The certain effect, then, of giving labor joint control with capital, would be the breaking down of all government.

The relation of capital and labor is a question of serious importance, involving a separation of the rights of each so ascertained as to bring justice to both sides. Consumers everywhere should have the benefit of trained and skilled labor, of the best equipment which is possible and of the directing ability of minds trained in management. Only through this combination can the highest efficiency in production be attained.

HENNEN JENNINGS ON THE GOLD INDUSTRY

We call special attention to the article "The Gold Industry and Gold Standard," from which copious excerpts appear in this issue. Mr. Hennen Jennings, Consulting Engineer of the United States Bureau of Mines, was selected by the Bureau to make a study of the economic conditions underlying gold production and the article was prepared as a Bureau of Mines publication. This discussion naturally included the economics of the subject and the personal views of the author and the Bureau therefore decided that this should not be printed as an official document.

The paper embodies a valuable discussion of the fundamental principles involved in the process by which labor is transformed into the necessities and luxuries of life. It demonstrates the need of efficiency and points out that the costs of living necessarily increase as wages are increased and that "in the end no material gain can be obtained by labor unless there is some compensating advance in the output of his work."

OIL PRODUCTION A WAR NECESSITY

War conditions have created a necessity for greater stimulation of the production of the petroleum products than has heretofore ever been given. The falling off of oil production through natural causes which cannot be avoided is to be expected but the shutting off of production through foolish controversy between the War, Navy and Interior Departments as to whether certain oil areas shall be developed or whether they shall be held out as a Naval Reserve for the future use of the Navy is well calculated to exasperate those who appreciate the need and who foresee the extremely serious effects of governmental interference with the natural course of development enterprises. It is high time that people forget conservation and turn their attention to rendering the most practical assistance in the conduct of the war. The future supply of oil is contained in oil shale, the supply is abundant, and the plan of storage more perfect than can be devised by human ingenuity. The Government is continually withdrawing lands from oil development in order to provide a supply for the future, and at the same time it is proposing to put oil shale lands under a leasing system designed to force production at the earliest time possible. In a discussion of this general subject, Mr. C. W. Barron in the Boston News Bureau has the following to say concerning the present situation:

> Today the country is aroused as never before over the necessity for merchant ships, aeroplanes, submarines, and submarine destroyers. Nobody arises either in Washington or in the public press to tell the people of the United States that all these programs, ships, submarines, destroyers and aeroplanes, rest upon oil and fuel and that the United States is not producing, and cannot within its own borders produce, the oil to sustain this program without another expensive shutdown in the industries.

Mr. Barron proceeds to analyze the production in the different fields, showing that 200,000 oil wells in the United States are now producing at the rate of 300,000,000 barrels per annum and that we shall shortly require 425,000,000 barrels per annum to meet the Government's requirements. In California and Wyoming are the two fields in which an increase in production might reasonably be expected. In both of these fields production work is at a standstill, largely because of the contest between the Government and its own citizens as to whether they shall be permitted to develop these oil wells, and furnish the oil which the nation so greatly needs. Our western secretary, Mr. John T. Burns, writes from Denver under date of April 11, as follows:

> The uncertainty of the oil situation and the apparent disregard by the Government of the rights of investors and prospectors, the continual withdrawal of oil lands in Wyoming in the most unexpected places and manner and the insistent way in which Lenroot, Ferris and the various departmental secretaries are trying to push Attorney General Gregory's amendment to the recent bill, is putting the oil business of Wyoming very much to the bad. Last week's withdrawal for instance from the Moorcroft field indicates that no man is safe in proceeding to finance an oil company. Moorcroft is a fine field and has just been brought in. Operators who have already toted their outfits to the territory stand to lose heavily through the restrictions, and while there is no hope that we can get through without some sort of a leasing bill, we do hope to have some rational consideration of the business situation in connection with this industry.

Under these conditions, how can we expect that oil production may be increased? Those who have filed upon the oil shale lands of the West are at a standstill because of the fact that they are in doubt as to whether the enormous investments which are necessary to the production of oil shale products will be protected by the Government, or whether the same course which was pursued with reference to the coal claimants of Alaska by which their investments were entirely lost, shall be followed with reference to the oil shale lands in the western states.

Interprets Greenhouse Order

The Fuel Administration has interpreted its regulation restricting fuel for greenhouses by ruling that the exception made in favor of greenhouses in which vegetable plants were raised for "transplantation to produce summer vegetables" applied only to greenhouses exclusively devoted to that purpose.

MINERALS ADMINISTRATION BILL PASSES HOUSE

Appropriation Reduced from $50,000,000 to $10,000,000—Price Fixing Power Stricken from the Measure—Senate Committee Begins Hearings.

After extended debate the House of Representatives eliminated the price fixing power from the mineral control bill, cut the appropriation from $50,000,000 to $10,000,000 and passed the bill by a vote of 290 to 7. The price fixing power was stricken from the bill largely through the aid of representatives from the cotton states who feared that it would establish a precedent, which later might be applied to the fleecy staple of the South.

The bill now is on the Senate calendar. Hearings on it before the Committee on Mines and Mining began May 2.

The argument of Representative Towner against the $50,000,000 appropriation is characteristic of most of the others. He said:

"I am quite sure there is no man on the floor who would not vote for $50,000,000, or any sum that might be necessary, for the successful prosecution of the war. The only question here is whether in forming this revolving fund, which is for the purpose of purchasing and storing commodities that are named in the bill, $50,000,000 is not an amount altogether too large. It occurs to me in reading the hearings before the committee that no such amount can possibly be used; that $50,000,000 is only an invitation to people to go out and use it, draw on it for the purpose of developing wildcat projects not now in existence, and that it will be a temptation for squandering and losing the money. Ten million dollars, and certainly $25,000,000, will be an abundant fund for the purchase of anything that is necessary to be stored or accumulated for use in this war and then resold. The very idea of a revolving fund implies not only the purchase of commodities but the sale of them. This would mean the purchase of property and the resale of it. I think it is an unwise thing to put into the bill an amount for that purpose as great as $50,000,000.

"I do not think there is any man here that would for a minute believe that it could be used unless it was used for speculative purposes. I have gone somewhat carefully through the various things enumerated in the bill and the testimony in regard to them. There are only two articles that you might say in this bill are imperatively necessary, which we could not produce. Take ferromanganese, the testimony is unequivocal that in a short time we can produce ferromanganese, because it is already in existence. We have an abundance of sulphur and pyrites for the manufacture of sulphuric acid. Not one single dollar is necessary, in my judgment, to secure an abundant supply of pyrites and sulphur for sulphuric acid. We have the most tremendous deposit of sulphur known in the world in Louisiana and Texas. The sulphur of Louisiana is 98 per cent pure, and there is no such deposit anywhere else in the known world. We do not need a single dollar to develop that. All that is necessary is that the price should be sufficient to make development attractive. The power is given so that the Government can do it if it is necessary. So these things do not require nearly that amount of money.

"In reading the hearings it is taken into consideration that $50,000,000 shall be used for the purchase of articles the Government needs, but that is not contemplated by the bill. This is not an appropriation bill. The apropriation will have to be made by the Committee on Appropriations. I want to call the attention of gentlemen to the fact that they heard the statement made by the chairman of the Appropriation Committee, Mr. Shirley, on the floor regarding this very bill. He said that if this authorization were made the Appropriations Committee would feel under obligations to follow out the action of the House and make the appropriation."

Chairman Foster, in meeting this argument, said:

"I ask you in all fairness, gentlemen, not to vote for a $10,000,000 proposition. It is not sufficient money. It is not sufficient to go out and do this work, and I ask you not to do that. I am sincere about it, as sincere as I can be.

"I want to impress upon you the importance of carrying out the purposes of this act and securing this material, if it shall be necessary; and if you make it $25,000,000 and it should be necessary to secure more money, I believe the Committtee on Appropriations, with the approval of Congress, would make that appropriation. But I do most earnestly hope, gentlemen, that you will not vote for this amendment. It is not enough. Any man can go over this proposition and see that we could not get along with $10,000,000."

Representative London, the Socialist member of the House, had a good deal to say about the bill. On one occasion during the debate he said:

"The Government must retain the power to increase tariff duties in order to prevent an oversupply of these necessaries. It may find itself with an enormous quantity of material on its hands. It may be compelled to sell that material. The law does not authorize the Government to continue the operation of any mine or any of these operations subsequently to the termination of the war, and in order to protect itself it is compelled to secure itself against an oversupply. It must have the right to fix the tariff to suit conditions, and it must have the right to fix the maximum. Otherwise the bill is absolutely indefensible. You can only stand for this bill on the theory that the Government is preparing for the possibilities of a very long war.

"If you vote $50,000,000 out of the people's money in order to encourage private industry, in order to help private owners of holes in the ground to develop mines, and then at the conclusion of the war contingency to permit these individual owners of the ground to enrich themselves by having a mine developed at the expense of the Government solely because there was an incidental benefit to the Government during the short period of the war; if you permit that, you must necessarily protect the Government against the contingency of large quantities of these products coming to the Government with the Government as the guarantor of the price. How can the Government guarantee a minimum price for all the products of these mines without at the same time securing itself by possessing the power to fix a maximum price?

"It is presumed that there prevails in the private market a law of supply and demand, a sort of natural law, unaffected by anything men will do. The gentleman deals with an extraordinary situation. Here is the Government, the guarantor of a minimum price. There are large mines, there are large opportunities for the production of these articles; this country can produce five or six or ten times as much as it needs; the only reason that we have been importing some of these articles is because it has been cheaper to import them. The basis of all tariff legislation heretofore has been free trade in raw materials, so as to promote manufacture. We will find ourselves in this situation: The Government is to be the guarantor of a minimum price, which is supposed to be an attractive price, which is supposed to guarantee more than a reasonable profit, without any opportunity to limit the output or limit the price. Instead of 2,000,000 tons, the Government may find itself with 10,000,000 tons of minerals. Where will the Government be?"

An idea of the principal arguments made in favor of and in opposition to the bill may be obtained from the following verbatim excerpts from remarks made on the floor of the House by Chairman Foster and Representative Good. Dr. Foster spoke as follows:

"It is asserted here that we are to squander $50,000,000. If there is a proper administration of this money there will not be squandered one cent of the $50,000,000, but that money will be turned back into the Treasury whence it came. This is a revolving fund, to buy these necessary articles, and then when the Government sells them the money will be returned to the Treasury of the United States, so that not one dollar need be squandered in carrying out this great work.

"We find today that it is estimated that more than 10,000,000,000 tons of sulphuric acid are necessary for the coming year. We know that they have taken off the ships and there will be after July not more than 10,000 tons of pyrites each month brought to this country, where formerly 1,200,000 tons have been brought in each year, and the amount will be cut down now from month to month and continued at 10,000 tons.

"Are you willing, my friends, to say now that the Government shall be deprived of these materials that make these necessary articles for the war? Are you willing to stand here in this humorous way and discuss this matter lightly when these men have stated to us, through hearings before our committee, that it is necessary that we should have these necessaries for making munitions of war?

"Are you willing to get up here and say that this is to open up some worthless mines and make the stock of those mines worth more money; that this is to make valuable some worthless stock and bring it up to par? Are you willing to trifle with these necessary articles that enter into the production of the shells that go to the boys across the seas? If you are, defeat this bill, and in six months' time we may be in a position where we will not have these articles to carry on the war.

"We have taken the shipping, and rightfully so, carrying these necessary minerals from foreign countries—taken the ships off that work and put them to work in carrying supplies to support the gallant soldier boys across the seas.

"My friends, are you going to say now that you will take back those ships, take them from the work of carrying troops and supplies to France, and put them on the route between Spain and the United States to carry pyrites, and between Brazil and the United States to carry manganese, when these minerals can be developed in our own country in sufficient quantities if only some organization is provided and some help is given? My friends, are you going to do this? If you are, then go ahead and defeat this bill. But if you are not, let us pass this bill and give the Government the right to secure these necessary minerals that they need for war purposes."

Representative Good, in opposing the bill, said in part:

"It is said that this is a war measure, but I am inclined to think it is unnecessary. It will provide many jobs for deserving democrats and to that extent it may be a war measure, but the power granted is already vested in the President. I regret that that side of the House was not farsighted enough before the war, when we told you that you needed American production, that you ought to produce in America everything that could be produced that we use or could use, and yet you destroyed those industries and now you reach out and ask $50,000,000 to rehabilitate them. Protection would have saved them at the expense of the importer. No, gentlemen of the committee, there is not a power granted in this bill, except the authorization for an appropriation and the additional power to create a new department, that has not already been granted the President. Ah, if it is true that we could release thousands upon thousands of tons of shipping by purchasing these things of the American miner, then I say to you the fault is not with the House, the fault is not with Congress, the fault is in the correct exercise of these broad powers that we have granted.

"Long ago you ought to have been producing manganese, antimony, and these things that you say you want to produce here in America. The President had the power to purchase. The first thing we did after we declared war was to give the President $100,000,000 to purchase things of this kind. Of course, this vast tonnage of ships should be released. It should be released at once. Do not wait for this authority; exercise the authority already granted and buy them at once. The authority and money have already been granted. Almost a year ago we granted this authority, and it should have been exercised long ago. We should have been buying antimony and manganese and bismuth—and all those things which you say you are going to buy, if this bill becomes a law—for a year. You have needed the ships all year. The President has the power to buy them now, at any price he may fix. He has the money in his hands with which to buy them, and there is no limitation on the price that he can pay. Why not exercise this power? Why create more useless offices, the salaries of which drain the substance of the people?"

Representative Johnson of Washington was caustic in his criticism of the measure. He said among other things:

"Every department in this Government is striving for more power and more money. This bill involves a $50,000,000 appropriation. I will venture the assertion that the real proponents of this bill are sitting in the gallery at this moment and that they come from the Bureau of Mines. Oh, I will vote for the bill, but I hope to see it trimmed, and I advise the holders of all kinds of dead mining stocks held by the people throughout the East to make haste and dig them up from their trunks and garrets and hang onto them, because if, after having tried to develop these interests, we find them taken over or developed under Federal control and a revolving fund provided, the stock therefore may be galvanized into some value.

"I suggest that little cabins be built out in that country for innumerable governmental prospectors, so that they may be housed comfortably while pursuing their work. Also nice government houses here in Washington for gentlemen who may be called here to help inflate the Bureau of Mines."

Representative Mondell came in for applause after the following remarks:

"My support of this bill, such as it is, arises more from the promptings of a lively hope than from the assurances of a sound judgment. (Laughter.) The time was, many years ago, when, following the practice of the western country, I roamed the hills somewhat as a prospector. It was my lot and good or ill fortune at one time or another to engage to a considerable extent in the development of minerals, among others some of the minerals enumerated in this list of so-called necessaries. I have some knowledge of the practical conditions surrounding the discovery and development of properties of this sort, and my opinion is that the present high prices and unusual demand for these minerals will in the main lead to their development, so far as the minerals are to be found anywhere within our borders, without any Federal aid or encouragement. There may, however, be a sound reason for the encouragement of the mining of certain minerals, pyrites and manganese particularly, in this country, due to the fact that our foreign importations are large, and it is desired to utilize shipping now engaged in that trade for other purposes.

"How far we are justified in placing a bonus on developments of manganese and pyrites and minerals of that character in order to relieve the demand for shipping I do not know, and it is because of that doubt rather than because of any well-grounded conviction that any real and substantial good will come out of the measure that I am proposing to support it, particularly if it is somewhat amended. It is a curious fact that no man is ever a good prospector except the fellow who prospects largely on his own account.

"I did not take the floor primarily for the purpose of discussing those features of the bill, but rather to call attention to the curiously illogical attitude of certain departments of this Government touching important, necessary, and essential mineral development. I think it may be said in truth that this legislation, if it is placed upon the statute books, will have become law very largely through the influence of the Secretary of the Interior, a very able and upright and wise man, a friend suggests, with all of which I agree. But the attitude of the Secretary of the Interior toward various classes of minerals is curiously illogical. While he is proposing we authorize the expenditure of $50,000,000 of the good money of the American people, invested in liberty bonds and obtained from payment of taxes, for the purpose of encouraging the development of certain minerals, the necessity for the encouragement of which is not altogether demonstrated, the Secretary of the Interior by his own acts has tremendously curtailed the development and production of mineral oil, a mineral element needed now as badly as any element produced from the earth. This very hour throughout all of the West men are prospecting the public lands, spending their time and money, enduring hardships, willing to invest their capital to develop oil, and no sooner does a prospector, a developer, a wildcatter, plant his stakes and proceed to development than the officials of the Geological Survey, under the orders and jurisdiction of the Secretary of the Interior, proceed to withdraw the land from under the locator, thus discouraging him and preventing development. Within the last two weeks orders of withdrawal have been issued covering thousands of acres in the State I have the honor to represent on this floor. Nearly a million acres of that State, upon much of which development work would now be under way with private capital, by private enterprise, are now and have for a considerable period of time been held in withdrawal, making it impossible for the private individual to go on with his mineral development, except at the hazard of contesting with the same Secretary who withdrew the land his right, title, and interest in and to it. We are needing constantly increasing quantities of mineral oils for fuel, for lubrication, for power.

"The reserve supplies are shortening every day. The demands are increasing every hour, and in this condition of affairs, when we are proposing to spend large sums of the people's money in the encouragement of the development of certain other minerals, the influence and activity of the Interior Department is being used in the discouragement of the development of these highly essential mineral products. Before long we shall have reported to this House a bill which, if it comes here in the form in which I understand it has been agreed upon, will add to the discouragement of oil production by further penalizing the activities of those seeking to develop the oil lands of the West.

"I am hopeful that out of this bill now before us some good will come. I trust that expenditures under it may be wise. The Lord knows I hope, as all good Americans do, that we may develop our resources and become independent of all the world for these necessary minerals. I trust we are justified in spending some of the people's money for that desirable consummation. In the meantime may we not also hope that a department of the Government that is aiding, promoting, and urging this legislation shall in good conscience take its heavy hand off the oil development of the West."

That the War Finance Corporation has the power to take the action provided in the bill was a point introduced by Representative Walsh and which led to extended debate. A paragraph from Mr. Walsh's remarks makes clear his thought:

"Every man, with possibly one or two exceptions, who appeared before that committee was biased, some because they were going to have the administration of the law or have written the measure, others because they are interested in the mining business and will to a certain extent benefit by this legislation. In my view, I believe there exists already sufficient authority under the national defense act for the President to place orders for these minerals and for him to see that those orders are filled, and if the orders are not filled because the people with whom they are placed are not financially able to do it, I submit that under the War Finance Corporation law, which we passed through this House some weeks ago, that such financial assistance can be rendered and that it is not necessary to build up here a great twin-sister organization to the food and fuel control body that has been created."

An extended controversy as to whether the President favors the bill ended when Dr. Foster made this announcement:

"The President approves this bill. He called me to the telephone a little while ago. The President told me that this bill has his full indorsement.

"The President of the United States said that this is a war measure and he regards it very essential that it should become a law. He said it is necessary because ships have to be taken from importing these materials to carry supplies to France. This is a war measure and nothing else, and he authorizes me to say to this House that the bill has his indorsement and that he would be pleased to see it become a law at as early a date as possible."

GOVERNMENT IS TO GET ITS QUICKSILVER FOR $105 A FLASK

The War Industries Board recently sent out the following letter:

"We beg to inform you that a meeting of the large producers and agents of quicksilver companies agreed to our suggestion and desire that the price per flask of mercury should be fixed at $105, delivered at San Francisco or Mare Island Navy Yard for mines in California, Oregon, and Nevada, and at some Texas point, say Marathon, for the Texas quicksilver mines.

"If delivered at New York or Brooklyn, 75 cents per flask to be added to the above.

"Such price to be for quicksilver for the use of the United State Government and the Allied Governments.

"In order that all may share alike, the government requirements should be supplied by each producer in the proportion his production bears to the total. According to the government estimates of demands at present, we figure your proportion roughly at .... flasks per month, to be delivered as directed later. In the meanwhile, please hold this amount from your April production.

"Kindly notify of your acceptance, and the name of your agent, or the firm to which you sell your product. We feel sure that we can count on your hearty and patriotic cooperation."

Mr. Yeatman states that to date no one has offered the slightest objection to carrying out the plan.

SILVER BILL PASSES; BECOMES LAW QUICKLY

Unusually Prompt Action on the Pittman Measure Follows Intimation that Serious International Trouble Would be Caused by Delay

In few previous cases has a bill become a law so quickly as was the case with the Pittman silver bill. It was passed by each House without a roll call. The only thing which kept the bill from being discussed at great length, and which quieted the very considerable opposition was the warning that a delay would be serious.

Perhaps the necessity for immediate action on the measure by Congress cannot be better set forth than by the reproduction of a letter of the Secretary of the Treasury to Senator Pittman:

> I have examined the draft of a bill embodying the ideas which have been discused between us for the utilization of the silver now lying unused in the Treasury of the United States. I venture to recapitulate briefly the purposes to be accomplished by the bill and the reasons which, in my judgment, require its enactment.
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> The annual production of silver has varied in recent years, having fluctuated from 160,000,000 ounces to 226,000,000 ounces per annum according to the estimates of the Director of the Mint. Production for the year 1916 amounted to 156,600,000 ounces, and for the year 1917 is estimated to be approximately 160,000,000 ounces. The decline in production during recent years has been partly due to conditions in Mexico, as the result of which Mexican mines have not been operated to their full capacity. The price of silver has varied from about 48½ cents per fine ounce, at which price it sold during August, 1915, to $1.18 per fine ounce during September, 1917. Apart from industrial requirements, estimated at about 100,000,000 ounces per annum, silver is used by all nations for subsidiary coinage and by India and other Oriental countries for major coinage. In China uncoined silver circulates as money.
>
> The European war has greatly enlarged the demand for silver. European countries engaged in the conflict have required unusual quantities of silver coins for their armies and for the civil population. Buying power of oriental countries has been greatly enlarged, and as the importation of commodities has been limited owing to war needs of the belligerents, that buying power has been exercised to acquire silver.
>
> China and India are the two oriental countries that absorb the largest amounts of silver. The products of India are wheat, jute, burlap, etc. The demand for Indian products has been unusual. Jute bagging is used for sugar, grain, and fertilizer bags, also as outside wrappers for cotton and other products. It is also used for trench bags and for packing many articles of military necessity. No article has been found that will serve as a substitute.
>
> The Orient is willing to accept silver in place of gold for commodities furnished by them, and it is to the interest of the United States and its allies that foreign-trade balances should, far as possible, be settled in silver rather than in gold. The gold in this country and in the hands of its allies is needed as a base for the enormous credit structure it is necessary to erect in the process of placing Government loans, and every ounce of silver that can be used in the settlement of foreign balances is so much gained. It is better to settle trade balances by shipping silver than to make arrangements for stabilizing exchange, where these are possible, as they are not in the Orient, because these exchange arrangements, whatever their form, always means a deferred demand for gold, while the settlement of foreign balances in silver is a definite settlement, calling for no future adjustments. Further, the unprecedented business activity in this country has caused an unusual demand for silver for subsidiary coinage, the needs of the United States for this purpose during the present year being greater than ever before, amounting as they do to approximately 21,250,000 ounces.
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> There are now in the Treasury of the United States approximately 490,000,000 of standard silver dollars, containing approximately 375,000,000 ounces of fine silver. Against these standard silver dollars there are outstanding silver certificates, and so long as these silver certificates remain outstanding a corresponding amount of silver dollars must be held for their redemption.
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> The proposal is now made to borrow from the Treasury, for the purposes stated above, a portion of the silver so held in the Treasury, but only upon the cancellation from time to time of a corresponding amount of outstanding silver certificates. The silver having been so borrowed and used, the Secretary of the Treasury is required to repurchase from time to time, at the fixed price of $1 per fine ounce, an amount of silver equal to the silver so borrowed and used, and to recoin that silver into standard silver dollars, thus in time replacing in the Treasury the silver so withdrawn. In this way the large mass of silver, which is serving no useful active purpose, can now be made available for a direct war purpose. There is no intention of making any permanent change in the status of the silver certificates. The proposition is, in brief, to retire silver certificates; to borrow from the Treasury the silver for use for the war purposes above set forth; and then, as silver from time to time in the future comes on the market, to replace the silver so borrowed by purchase in the market at the fixed price of $1 per fine ounce and to replace the borrowed silver by coining the new silver acquired for that purpose into standard silver dollars. There is no limit of time within which this must be done.
>
> The cost of producing silver, like the cost of producing all other commodities, has greatly increased. Labor is receiving very much higher wages than during normal times. Machinery is more expensive, and the chemicals and other supplies needed in the production of silver are all correspondingly higher in prices. The price at which the silver is to be rebought has been fixed in the proposed bill at $1 per ounce. This price was arrived at after an examination by the Director of the Mint into the cost of producing silver in a number of different mines, and the Director of the Mint is of the opinion that $1 per fine ounce under all the conditions at present prevailing is a fair price. The silver released through the retirement of silver certificates will be sold by the Secretary of the Treasury for the war purposes stated, at a price that will permit him without loss to rebuy at the price of $1 an ounce the silver thus sold.
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> The proposed measure is unquestionably in the interest of the country as a whole for the prosecution of the war. It proposes no permanent change in our existing currency arrangements. What is proposed is a temporary change, consisting of the active use for war purposes of the silver now lying inert in the Treasury. The bill provides within itself the steps necessary to reverse that position and to replace and recoin the silver.
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> The arrangement proposed is purely a temporary arrangement, and the pressing needs of the United States require, in my opinion, its prompt enactment into law.
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> Sections 5, 6, 7, and 8 seem to be the best way of dealing with the contraction of the circulating medium which would otherwise be brought about through the cancellation of silver certificates. This is accomplished by authorizing an issue of Federal reserve bank notes in small denominations in order to fill the void occasioned by the retirement of silver certificates and provides for the prompt retirement of those Federal reserve bank notes as silver certificates are from time to time reissued. There may well be differences of opinion as to the best method of counteracting such contraction. If no method of meeting the contraction be provided, the contraction will be automatically relieved through the issue of legal tender notes in denominations of ones and twos. Federal reserve notes

taking the place of the legal tender notes. This would be perhaps the easiest way of meeting the situation were it not for the fact that Federal reserve notes are now secured by gold reserve of over 60 per cent and the issue of additional Federal reserve notes without a corresponding addition to the gold reserve would reduce the percentage of reserve Federal reserve bank notes, on the other hand, require a reserve of but 5 per cent, and as there is absolutely no reason why a larger reserve for Federal reserve bank notes should be provided, it seems to me unwise to reduce the percentage of reserve under Federal reserve notes.

My reason for stating that the Federal reserve bank notes, the issue of which is contemplated under the bill, require no greater reserve than 5 per cent is that these notes in small denominations will merely take the place in the pockets of the people of the silver certificates now carried by them and are thus extremely unlikely to be presented for redemption. If, and to the extent that they are presented for redemption, it will be a demonstration that these notes are not needed in the circulation and the means for their prompt retirement is furnished by the deposit as security for these Federal reserve bank notes of short-time certificates of indebtedness or the one-year conversion notes of the United States. Whenever, therefore, these Federal reserve bank notes are presented for redemption, it will only be necessary to let the maturing obligations held against them run off. The popular and well-founded feeling against a bond-secured currency therefore does not apply to the present issue, because (1) the issue is strictly temporary in its nature, (2) the security behind the issue automatically provides for the redemption of the issue, (3) no artificial value is given to any long-time bonds by the circulation privilege and no vested interest is created in the circulation privilege, which, if created, it might prove burdensome for the Government or the banks to abate.

If the method suggested for dealing with the replacement of the silver certificates that may be retired does not commend itself to you as the best manner of meeting the situation, I should be glad to discuss any modifications that may be thought advisable.

New District Representatives Named

Appointments of two District Representatives of the United States Fuel Administration for service in Pennsylvania have been announced.

The appointees are Julian B. Huff, who will have headquarters at Greensburg, Pa., and W. L. Byers, whose headquarters will be at Uniontown, Pa.

The territory in which Mr. Huff will work includes Westmoreland county, on the Pennsylvania Railroad, main line and branches, north of Ruffsdale, excepting Sewickley branch, connecting at Youngwood, between Pitcairn and Blairsville intersection. This does not include mines on the Pittsburgh division of the Baltimore & Ohio or river mines on the Youghiogheny River.

Mr. Byers will work in the district comprising Fayette county, south and west of a line from Banning station through Whitsett Junction to Brownsville, except operations on the Baltimore & Ohio at and east of and connecting at Indian Creek; also operations in Westmoreland county on the Pennsylvania Railroad at and south of Ruffsdale and operations on the Sewickley branch connecting at Youngwood; also operations on the Baltimore & Ohio in Westmoreland county on the Mount Pleasant branch, connecting at Broadford, but not including operations on the Baltimore & Ohio along the Youghiogheny River or river mines on the Youghiogheny River.

MEXICAN EXPORT TAXES ON METALS ARE ANNOUNCED

The Secretary of the Treasury of Mexico has issued the following rates of taxation upon exportations of metals and minerals: (The figures here given are in American gold per pound weight of material): Gold—$21.47½ per pound; silver in bars or ingots, 63¾ cents; silver in mineral or concentrates, 89½ cents; copper in bars or ingots, 1.19 cents; copper in minerals or concentrates, 1.42 cents; lead in bars or ingots, .00155 of a cent; lead in minerals or concentrates, .002139 of one cent; zinc in bars or ingots, .005589 of one cent; zinc in minerals or concentrates, .007454 of one cent; tin in bars or ingots, 2.585 cents; tin in minerals or concentrates, 2.703 cents; antimony, in bars or ingots, .001343 of one cent; tungsten in minerals or concentrates, 4.33 cents; manganese (metallic), .001863 of one cent; mercury, 4.784 cents.

SIXTY CENTS IS ADDED TO EXPORT COKE PRICES

An additional regulation governing the price of coke was issued today by the United States Fuel Administration, as a result of which 60 cents per ton of 2,000 pounds may be added to the government price where the coke is for export to foreign countries or to a possession or dependency of the United States. The operator may also add to this the cost of transportation from the ovens to the port of loading.

The order issued by Fuel Administrator Garfield recites that handling coke for export involves certain expense of assembling loading, selling and financing; and, provides that no coke shall be sold or delivered for export to any foreign country except by permit issued by the Fuel Administration to the vendor authorizing the sale.

The 5 per cent provided for in the order of March 26, 1918, for coke manufactured east of the Mississippi River and sold and delivered west of the Rocky Mountains may be added to the price for all coke exported from the Pacific Coast in addition to the 60 cents allowed in the regulation issued today.

Coal for export is permitted to be sold at $1.35 in excess of prices for other purposes, under a regulation issued by the Fuel Administration some months ago.

Lightless Nights Suspended

At the request of the Liberty Loan Committee Dr. Garfield decided to suspend operation of the Lightless Night order beginning April 25. By reason of the late hour of lighting, brought about by the Daylight Saving Law, the Lightless Night order will remain suspended until September 1, next, when it will again become effective.

WAR INDUSTRIES BOARD CARRIES OUT REORGANIZATION

In accordance with the directions of the President as stated in his letter to the chairman of the War Industries Board, a new plan of organization has been undertaken. The general purpose of the plan is to prevent confusion and conflict in the ordering and delivery of supplies and to secure unification of the Government's policy in dealing with industrial problems. The essential change involved in the redistribution of functions is the creation of a Requirements Division which will serve as the central directing agency in the machinery of the War Industries Board, through which the policies of the chairman are to be carried out.

The Requirements Division will be the agency to which this information will be furnished and to which the Supply Divisions of the purchasing departments and the Allied Purchasing Commission will "as far in advance as possible" submit statements of their "respective needs" for raw materials and finished products. The Requirements Division will in turn delegate the task of fulfilling these needs to the special Commodity Divisions of the War Industries Board, to the Supply Departments themselves, or to such other agencies as may be decided upon.

The statements furnished the Requirements Division by the several Supply Divisions of the Department will include not only commodities in which a present or threatened shortage exists, but also those in which the supply is ample and will include commodities required by one department only as well as commodities required by several different departments. In the procurement of supplies in which no shortage exists and where no allocation seems necessary or desirable, the Requirements Division will so advise the Department presenting the requirements, which will proceed with the purchase in pursuance with their established practices. That is, in pursuance of the President's directions, the War Industries Board will "let alone what is being successfully done and will interfere as little as possible with the present normal processes of purchase and delivery in the several departments." At the same time, having complete information as to the progress of the departments, furnished through the Requirements Division, the chairman of the board will have at his disposal complete information to guide him in the determination of general industrial policy.

Speaking generally the Requirements of both the American government and the Allies can be met satisfactorily if orders and deliveries are given systematic allocation according to the relative urgency of the needs of the various departments demanding them. Shortage in materials is very frequently found on analysis to be not actual but rather the result of badly planned distribution. With complete information at its disposal the Requirements Division under the direction of the chairman of the War Industries Board will be in a position, through the several sections of the Board, to "guide and assist the departments" through proper allocation of materials, or at its discretion to leave particular tasks to the exclusive jurisdiction of the departments involved.

To take charge of particular problems of supply there have been created special commodity sections, and whenever necessary to handle raw materials or finished products of which there is an actual or threatened shortage, or the price and production of which should be controlled for the protection of the United States Government, the Allies, or the civilian population, new sections will be created by the chairman of the War Industries Board. Each of these sections will be charged with the responsibility of collecting from the several departments of the Government, from the manufacturers and producers and from committees representing them, and especially from the War Service Comittees created under the supervision of the Chamber of Commerce of the United States, and from any other reliable sources concerning the production of the particular commodity with which the section is charged, this information to include available supplies, new sources of supply, methods to increase production, etc.

It is the purpose of the chairman of the War Industries Board to make each of the section heads the sole government agency for dealing with the industry for which his section is responsible.

C. H. Means Directs New Inspection Work

Charles M. Means, a mining engineer of Pittsburgh, Pa., has been appointed manager of the inspection division of the United States Fuel Administration.

The appointment of a number of inspectors who will serve in the coal fields and pass upon the output of the mines before it is sent to market will be announced later. The inspectors will pass upon the quality of the coal and see that it comes up to the laws and regulations of the Fuel Administration in compliance with "clean coal" order and other provisions.

At this time only one inspector in each district representative's territory is to be named, but additional inspectors are to be named upon recommendation of the District Representatives of the Fuel Administration, and the work of inspection is to be thoroughly organized.

Mr. Means, who will be in charge of the inspection division, is one of the best known mining engineers in the country. He will assume the duties of his position at once.

DAVID KEITH DIES VICTIM OF PNEUMONIA

David Keith, of Salt Lake, a life member of the American Mining Congress and one of the best-known mining men of the west, died suddenly at Salt Lake, April 16, of pneumonia.

He was a native of Nova Scotia, but left there when a young man and went via Panama, to California and subsequently went to work as a miner on the Comstock in Nevada, where he supervised much of the important properties. He went to Park City, Utah, in 1882 as foreman of the famous Ontario Mine, where he supervised much of the important development work. In 1885 he became manager of the Anchor Mining Company, now the Judge Mining and Smelting Company, and later took the contract to construct the Alliance tunnel at Park City.

He then became associated with former U. S. Senator Thomas Kearns and others in what was then known as the Mayflower claims at Park City, from which grew the great Silver King Coalition Mines Company, which has paid millions of dollars in dividends and of which Mr. Keith was president at the time of his death. He was also president of the Salt Lake Tribune Publishing Company and of the First National Bank of Park City; vice-president of the National Copper Bank of Salt Lake. director of the Las Vegas and Tonopah Railroad; director of the Salt Lake route; and also largely interested in real estate and mining in Utah and Nevada. He owned several important business buildings in Salt Lake City.

Mr. Keith never held public office except to be a member of the Utah Constitutional Convention. He was a man of large public spirit, a generous contributor to public enterprises and for many years a strong force in the development of the region in which he lived. He was of quiet, retiring disposition and was held in the highest affection by those who knew him and his work in Utah and its neighboring states. He was associated for almost a generation in many business enterprises with former Senator Kearns.

Mr. Keith leaves a widow, three daughters, and one son, Lieutenant David Keith, Jr., who is now with the United States forces in France.

F. W. DEWOLF

State Geologist of Illinois, who testified before the House Committee on the Mineral Control bill.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of THE MINING CONGRESS JOURNAL, published monthly, at Washington, D. C., for October 1, 1917.

City of Washington,
District of Columbia, } *ss:*

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared E. Russell Coombes, who, having been duly sworn according to law, deposes and says that he is the business manager of THE MINING CONGRESS JOURNAL, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of Publisher—The American Mining Congress.
Postoffice address—Washington, D. C.
Officers:
Walter Douglas, President, 99 John Street, New York.
Harry L. Day, First Vice-President, Wallace, Idaho.
M. S. Kemmerer, Second Vice-President, New York City.
George H. Crosby, Third Vice-President, Duluth, Minn.
J. F. Callbreath, Secretary.
Editor—J. F. Callbreath.
News Editor—Paul Wooton.
Business Manager—E. Russell Coombes.

2. That the owners are (give names and addresses of individual owners, or, if corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more or the total amount of stock): The American Mining Congress—a corporation, not for profit. No stockholders.

3. That the known bondholders, mortgages, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are (if there are none, so state): None.

E. RUSSELL COOMBES,
Business Manager.

Sworn to and subscribed before me this 2nd day of May, 1918.

(Seal.) THOMAS. C. WILLIS.

(My commission expires February 20, 1922.)

MINERAL IMPORTS TO BE CURTAILED EVEN FURTHER

Mineral Imports Committee Warns That Changes of Practice Must be Made to Allow Use of Domestic Supplies

"The shipping situation requires immediate important changes in mining and allied industries. The precise nature of these changes and the agencies and methods through which they will be accomplished, are not yet formulated, but there are certain fundamental facts which should be clearly understood," says the Committee on Mineral Imports and Exports of the Shipping Board.

The acute ship shortage has forced a drastic cut in imports of a considerable number of minerals essential to war industries. Among the more important embargoes of these are manganese, chromite, pyrite and graphite. Some are already in effect. Others will shortly follow.

"Ships released in this way, or their equivalents, have gone directly into military use, and with a still greater military program planned and probable further decrease in total ship tonnage, for a time at least, there is little possibility of early reinstatement of ships for mineral imports.

"The deficiencies in supply thus caused must be made up from domestic sources. Reduction of imports has been based on careful estimates of the possibilities of domestic production. Estimates have been liberal, and there is not much danger of over-production. Every ton mined here will save a ton of shipping.

"The increased use of local ores will require many changes in practice and probably also reduction of less essential uses.

"These changes must be accomplished, regardless of cost or difficulties, for the alternative of bringing in supplementary supplies from abroad no longer exists.

"Government cooperation will be necessary along several lines. Already attention is being directed to various phases of the problem by the War Industries Board, the War Trade Board, the Shipping Board, the Department of the Interior, the Railway and Coal Administration, and the Treasury Department. There is pending in Congress a bill to concentrate control over the mineral industries most affected by ship embargoes. While the situation is being actively followed up, there is likely to be a delay of at least several months before it is well in hand.

"If private interests wait until every detail is settled before taking steps to meet the situation there is danger of vital damage to essential war industries. Patriotism requires that the mining and metal industries do everything reasonably possible to get projects started at once. The necessary government cooperation may be slow and halting, and mistakes are not unlikely, but as the shipping situation allows no alternative, it is a reasonably safe assumption that the absolutely necessary things will be done in time.

"In view of these facts, the far sighted management of the mineral industry will not base its calculations for the immediate future on the practice of last year."

A MORE SERIOUS COAL SHORTAGE FEARED THIS YEAR

Another coal shortage, more serious than that of last winter, and almost certain interference with the war program, are inevitable throughout the East, in the opinion of bituminous coal operators in the chief producing sections of the country, unless there is a readjustment soon of traffic over eastern railroads, says the National Coal Association. The enormous demands of other war industries are crowding coal off the rails, and the resultant continued shortage of cars at the mines has cut production to the danger point.

This is the season of the year when the mines should be working at top speed to produce stocks for storage against the needs of next fall and winter. The mines, however, are not working at top speed, nor at a rate even approaching top speed. In the face of the heaviest demand for coal in the country's history, the mines have been so hindered by insufficient car supply that they have made little, if any, headway over last years' record—a record which fell 50,000,000 tons short of meeting the nation's demands.

PENNSYLVANIA SETS PACE IN EARLY BUYING CAMPAIGN

Pennsylvania is setting the rest of the country a striking example in patriotic endeavor by getting squarely behind the movement inaugurated by the United States Fuel Administration for the early ordering of coal.

New York and other states in the East are following the lead and reports generally show a mighty response to the appeal to domestic consumers to place their orders early to the end that the fuel famine dangers of another winter may be minimized.

From New York City reports show that a majority of the retailers are handling orders in large volume.

Pennsylvania consumers have entered vigorously into the early buying campaign. Virtually half the coal dealers in Pennsylvania have booked enough orders for domestic fuel to keep their delivery equipment busy for several months.

In Philadelphia alone since April 1, orders for domestic coal have reached a total of 750,000 tons, nearly one-third of that city's normal consumption of 2,500,000 tons.

MANUFACTURE OF CLAY PRODUCTS IS RESTRICTED

The United States Fuel Administration has issued regulations, approved by the War Industries Board, restricting the manufacture of clay products and rearranging and dividing the manufacturing program of this industry in such a way as to place it on the basis of war industry.

Ten orders of this series were signed by Fuel Administrator H. A. Garfield, the products dealt with being arranged in classes and manufacture curtailed on a percentage basis as follows: Face brick, 50 per cent restriction; common brick, 50 per cent restriction; paving brick, 50 per cent restriction; terra cotta, 50 per cent restriction; roofing tile, 50 per cent restriction; floor and wall tile, 50 per cent restriction; sanitary ware, 50 per cent restriction; hollow tile, 25 per cent restriction; drain tile and sewer pipe, 25 per cent restriction; stoneware (except chemical), 15 per cent restriction.

Curtailment in each case is based on the average output of the past three years. It will be noted that the percentage of curtailment is not equal in all classes of clay products. These figures have been reached after careful investigation and represent rates of production which will be for the best interests of the necessary government work and in general for the interests of the manufacturers involved.

The experience of the last year has brought two facts clearly to the front. First, that as far as possible the new war work must be put into old factories to take the place of less essential production. This method of producing war supplies prevents building problems, housing problems and transportation problems which necessarily follow the setting up of new plants for war production. Second, that in addition to this transference it will be necessary for many industries to make deliberate sacrifices of a part of their ordinary business in order that there may be transportation, men and materials enough for war production.

The War Industries Board and the Fuel Administration have been for several months obtaining information which would enable them to reorganize lesser essential industries, such as building materials, which tax transportation facilities and fuel supplies to the largest extent.

The Bureau of Standards and experts associated with each industry have placed their services at the disposal of the Government and have aided in reaching conclusions.

In general the minimum basis of running for the year has been established in each class of clay products. This minimum has taken account of the more necessary requirements outside of strictly war activities as well as the necessities of the Government. Beyond this, it is arranged that whenever the government departments certify requirements in any of the divisions exceeding the productive capacity of a given district on the minimum basis, such facts will be certified to the Fuel Administration and permits for additional running will be issued.

The aim has been to conserve the larger interests of the trade involved. Equal treatment for all plants is provided wherever possible. Allowance, however, is made in the plan for recognizing individual instances where an abundance of fuel and absence of congestion make it desirable that a large proportion of production be permitted in a given district. The granting of such additional output has been hedged about with safeguards so that general conditions in the different trades will not be seriously affected.

Fuel Administrator Garfield has also issued an order dealing with the production of enameled ware. The reduction in this case is 50 per cent.

FUNCTIONS PRESCRIBED FOR NATIONAL WAR LABOR BOARD

As outlined by the President's proclamation the powers, functions, and duties of the National War Labor Board shall be:

"To settle by mediation and conciliation controversies arising between employers and workers in fields of production necessary for the effective conduct of the war, or in other fields of national activity, delays and obstructions in which might, in the opinion of the National Board, affect detrimentally such production; to provide, by direct appointment, or otherwise, for committees or boards to sit in various parts of the country where controversies arise and secure settlement by local mediation and conciliation; and to summon the parties to controversies for hearing and action by the National Board in event of failure to secure settlement by mediation and conciliation.

"The principles to be observed and the methods to be followed by the National Board in exercising such powers and functions and performing such duties shall be those specified in the said report of the War Labor Conference Board, dated March 29, 1918, a complete copy of which is hereunto appended.

"The National Board shall refuse to take cognizance of a controversy between employer and workers in any field of industrial or other activity where there is, by agreement or federal law, a means of settlement which has not been invoked.

"And I do hereby urge upon all employers and employees within the United States the necessity of utilizing the means and methods thus provided for the adjustment of all industrial disputes, and request that during the pendency of mediation or arbitration through the said means and methods, there shall be no discontinuance of industrial operations which could result in curtailment of the production of war necessities."

PREFERENCE LIST ANNOUNCED; NEW PRIORITY PLAN BEGUN

The Priorities Board has adopted Preference List No. 1 for the guidance of all governmental agencies in the supply and in the distribution by rail or water of coal and coke. While the list speaks for itself, it is proper to say that the Board has not undertaken to classify any industry as non-essential or at this time to limit the quantity of fuel which any particular industry or plant shall receive. The Board has, however, listed certain industries whose operation is of exceptional importance measured by the extent of their direct or indirect contribution either toward winning the war or toward promoting the national welfare, and these industries will be accorded preferential treatment by the Fuel Administration in the distribution of coal and coke and also in the transportation of such coal and coke by the railroads.

This same plan will be followed in according preferential treatment to war industries and plants in the transportation of raw materials and supplies required by them in their manufacturing operations, so that they may not be delayed or hampered in complying with priority orders issued against them governing their products.

Preference List No. 1 is not complete in itself, but it will be noted that provision is made for certifying additional classes of industries and also individual plants whose operations are necessary as a war measure. In determining what industries or plants are entitled to be certified, two factors will control:

1. The relative urgency of the uses or purposes for which the product of the plant is utilized; and

2. The per cent of the product of the plant utilized in war work, direct or indirect, or work of exceptional or national importance. No plant, a very substantial per cent of whose product is not of exceptional importance, can be accorded preferential treatment.

The Priorities Commissioner, under the direction of and with the approval of the Priorities Board, will certify additional classes of industries, and also certify individual plants whose operation as a war measure is of exceptional importance, which industries and plants when so certified shall be automatically included in this Preference List, which shall be amended or revised from time to time by action of the Priorities Board to meet changing conditions.

No distinction is made between any of the industries or plants which are or may be included in this Preference List, and no significance should attach to the order in which the industries or plants appear in the list.

Aircraft—plants engaged exclusively in manufacturing aircraft or supplies and equipment therefor; ammunition—plants engaged in the manufacture of ammunition for the United States Government and the Allies; army and navy cantonments and camps; arms—(small)—plants engaged in manufacturing small arms for United States Government and for the Allies; chemicals—plants engaged exclusively in manufacturing chemicals; coke plants; domestic consumers; electrical equipment—plants manufacturing same; electrodes—plants producing electrodes; explosives—plants manufacturing explosives; farm implements—manufacturers exclusively of agricultural implements and farm operating equipment; feed—plants producing feed; ferro-alloys—plants producing; fertilizers—manufacturers of fertilizers; fire brick—plants producing exclusively; food—plants manufacturing, milling, preparing, refining, preserving, and wholesaling food for human consumption; food containers—manufacturers of tin and glass containers and manufacturers exclusively of other food containers; gas—gas producing plants; gas—plants manufacturing exclusively gas producing machinery; guns—(large)—plants manufacturing same; hemp, jute and cotton bags—plants manufacturing exclusively hemp, jute and cotton bags; insecticides—manufacturers exclusively of insecticides and fungicides; iron and steel—blast furnaces and foundries; laundries; machine tools—plants manufacturing machine tools; mines; mines—plants engaged exclusively in manufacturing mining tools and equipment; newspapers and periodicals—plants printing and publishing exclusively newspapers and periodicals; oil—refineries of both mineral and vegetable oils; oil production—plants manufacturing exclusively oil well equipment; public institutions and buildings; public utilities; railways; railways cars and rails, and other plants engaged exclusively in manufacture of railway supplies; refrigeration—refrigeration for food and exclusive ice producing plants; seeds—producers of wholesalers of seeds (except flower seeds); ships—(bunker coal)—not including pleasure craft; ships—plants engaged exclusively in building ships (not including pleasure craft) or in manufacturing exclusively supplies and equipment therefor; soap—manufacturers of soap; steel—steel plants and rolling mills; tanners—tanning plants save for patent leather; tanning extracts—plants manufacturing tanning extracts; tin plate—manufacturers of tin plate; twine (binder) and rope plants producing exclusively binder twine and rope; wire rope and rope wire—manufacturers of same.

Discuss Conservation Plans

Representatives of more than 75 per cent of the school text-book publishing business of the country were in conference recently at the offices of the United States Fuel Administration with P. B. Noyes, the administrator's director of conservation, and A. D. Shaw, chairman of the Commercial Economy Committee of the War Industries Board. Means of conserving the paper supply were discussed.

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ANTHRACITE INDUSTRY SUPPORTING THE WAR

The anthracite industry is performing. It is turning out more coal and making greater shipments than ever before in its history. This it is doing, notwithstanding a big shortage of labor, by reason of the large and efficient development of the industry and the fact that, in full coordination working by itself and with its own experience and brains, there is no lost motion. All that is being done is under direction of the special committee of operators, which is part of the Federal Fuel Administration.

Washington authorities and business men of the country are now openly concerned over the bituminous situation. For the first quarter of this year, the official figures show that the production of bituminous in the United States was less than 133,000,000 tons, or some 2,000,000 tons less than for the same period last year. The showing is that for the quarter the bituminous mines averaged only two-thirds of maximum capacity.

For the first quarter of the year, total shipments of anthracite amounted to 18,727,242 tons, an increase of 619,304 tons—this in spite of the many difficulties which were encountered, and as the results show, surmounted. Last month 7,276,777 tons of anthracite was shipped, an amount greater than in any previous month in the history of the industry.

During the first year that the United States was in the war the anthracite industry, despite the labor shortage, the severe weather obstacles of last winter, and, at times, serious transportation difficulties, actually increased its shipments 14 per cent, or by nearly 10,000,000 tons, the total shipments reaching 77,752,315 tons. The anthracite industry is supporting the war with all its power.

REPORT OF COMMITTEE ON STANDARDIZATION OF ELECTRICAL EQUIPMENT IN COAL MINES

G. R. Wood, Chairman, Charleston, W. Va.

April 19, 1918.

Mr. J. F. Callbreath, Sec'y,
American Mining Congress,
Washington, D. C.

Dear Sir: I beg to acknowledge with thanks your letter of March 26th notifying me of appointment as chairman of the Committee on Standardization of Electrical Equipment in Coal Mines, and in accepting this appointment, am hopeful that we can this year accomplish something of value. My reason for this optimism is my belief that we shall be supported in my reasonable demand by the Fuel Administration and by the fact that there is evidently very close cooperation between all manufacturers of electrical mining machinery.

I believe it should be possible to standarize the following items:

1. Locomotive wheels.
    Chilled cast iron.
    Rolled steel.
    Steel tire.

Wheels of the above classes should be interchangeable by diameters, i. e., a 30-inch wheel should be standaridized as to bore, keyseat, hub, tread and flange. For steel tired wheels, tires should be standardized, as to thickness, tread, flange and shrinkage allowance. It would also be highly desirable, but more difficult, to standardize axles, journals, and gears.

2. Mining machine chains.
    Bit blocks.
    Strap links.
    Set screws.
    Bits.

Chains and parts as above should be standard for each type of machine, as chain breast, shortwall, turret or top-cutting, possibly requiring two standards of strength.

While there will doubtless be objection on the part of manufacturers to changing their existing standards, I feel that the mining industry is entitled to consideration, particularly in view of the very complete "standardization" of price of not only all equipment but also repair parts and supplies. Great improvement has been made in recent years in strength and durability of all wearing parts of mining apparatus, and the next important step is to so standardize these parts as to reduce to a minimum the investment in spare parts, without the necessity of confining purchases of locomotives and machines to the product of any particular manufacturer.

Yours very truly,
GEO. R. WOOD.

THE GOLD INDUSTRY AND GOLD STANDARD[1]

By Hennen Jennings

Consulting Engineer of the United States Bureau of Mines

It has been officially estimated that the world production of gold since the discovery of America, in 1492, to the end of 1916, a period of 424 years, was $16,601,641,319. The output since 1894, a period of twenty-three years, was approximately $8,500,000,000, or slightly more than 50 per cent of the total amount mined in 424 years. The average yearly production up to 1894 was $19,107,644, while since 1894 to date it has averaged $369,565,217 per year.

The available gold on hand as gold reserve in 1894 has been estimated at $3,965,900,000. The loss of gold and its absorption in the arts and manufacture of jewelry accounts for the difference between the amount produced and the amount on hand.

The amount of gold used in the arts has increased since 1894, and of late years it has been between $50,000,000 and $100,000,000 a year. Estimating the consumption and loss of gold since 1894 at $2,000,000,000 the amount of gold at present on hand as gold reserve may be roughly estimated at $10,500,000,000.

The concentration and portability of this wealth can be appreciated by converting it into tons weight, for the total tonnage of the entire gold reserve of the world does not amount to over 17,000 tons and it could be easily transported around the world in one of the largest steamships.

The following tabulated statement for the Transval is given in full as it is the most complete record of gold mining operations in the world. The yields, working costs and dividends, from 1887 to 1916, a period of 30 years, have been obtained by sworn statements to both Boer and British Governments.

THE WITWATERSRAND GOLD MINING INDUSTRY'S PROGRESS

Year	Tons milled	Yield		Working costs		Dividends £	Year
		Total £	Per ton s. d.	Total £	Per ton s. d.		
1887	25,000	81,045	... ..	....	... ..	12,976	1887
1888	250,000	729,715	... ..	....	... ..	109,050	1888
1889	575,000	1,300,514	... ..	....	... ..	430,666	1889
1890	702,825	1,735,491	49 4	1,480,940	42 1½	254,551	1890
1891	1,175,465	2,556,328	43 5	2,221,630	37 10	334,698	1891
1892	1,921,260	4,297,610	44 7½	3,418,290	35 6	879,320	1892
1893	2,215,413	5,187,206	47 0	4,231,848	38 4	955,358	1893
1894	2,830,885	6,963,100	49 2	5,435,816	38 4	1,527,284	1894
1895	3,456,575	7,840,779	45 4	5,793,927	33 5	2,046,852	1895
1896	4,011,697	7,864,341	39 3	6,350,659	31 7	1,513,682	1896
1897	5,325,355	10,583,616	39 7	7,876,435	29 6	2,707,181	1897
1898	7,331,446	15,141,376	41 3	10,293,138	28 0	4,848,238	1898
1899	6,639,355	14,093,363	42 3	11,606,968	... ..	2,946,358	1899
1900	692,413	2,484,247	... ..	2,590,523	... ..	....	1900
1901	412,006	1,014,687	49 2½	598,874	... ..	415,813	1901
1902	3,416,813	7,179,074	42 0	5,057,948	25 9	2,121,126	1902
1903	6,105,016	12,146,307	39 8	8,800,805	24 9	3,345,502	1903
1904	8,058,295	15,520,329	38 6	11,664,359	24 4	3,855,970	1904
1905	11,160,422	19,991,658	35 10	15,237,309	23 6	4,754,349	1905
1906	13,571,554	23,615,400	34 6	18,049,431	22 2	5,565,969	1906
1907	15,523,229	26,421,837	33 11	19,499,417	20 10	6,922,420	1907
1908	18,196,589	28,810,393	31 5	20,273,620	18 0	8,536,773	1908
1909	20,543,759	29,900,359	28 11	21,361,891	17 1	9,471,391	1909
1910	21,432,541	30,703,912	28 6	19,487,807	17 7	8,876,085	1910
1911	23,888,258	33,543,479	27 11	22,127,618	18 0	7,763,086	1911
1912	25,486,361	37,182,795	29 0	24,504,760	18 8	7,952,994	1912
1913	25,628,432	35,812,605	27 9	22,919,871	17 11	8,194,099	1913
1914	25,701,954	34,124,434	26 6	21,943,692	17 1	8,073,436	1914
1915	28,314,539	37,264,992	26 3	24,657,659	17 5	7,519,416	1915
1916	28,525,252	38,107,909	26 8	25,763,270	18 1	7,095,066	1916
Total	313,117,709	£492,198,901		£343,248,445		£119,029,709	

Official statistics showing annual tonnage milled, value of output, working costs and dividends, taken from "South Africa" newspaper.

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[1] Excerpts from paper by Mr. Jennings, complete copies of which will be furnished to those desiring same and making request to this office.

The total output for these 30 years was £492,198,901, or about $2,300,000,000. The yearly return for 1916, was £38,107,909, or about $185,000,000, which was 40 per cent of the world's output for that year. The dividends amounted to 24 per cent for the whole period but only 18.6 per cent for the years 1915 and 1916.

The total production of gold in the United States has been given by the Director of the Mint, as under:

From 1792 to 1847	$24,537,000
From 1848 to 1872	1,204,750,000
From 1873 to 1916	2,599,670,200
Total	$3,828,957,200

The yield up to 1847 was obtained from the Eastern coast; from 1848 to 1872, largely from the placer mining in the West; and from 1873 to date, by combination of placer and lode mining and recovery of gold from refineries.

Gold dredging in the United States dates only from 1896, and since that date the production of gold has been estimated at $120,103,117.

In 1916 the greatest amount of placer mining, including dredging, was done in Alaska, where over 60 per cent of the gold was thus recovered, and in California, where 38 per cent was recovered.

The yearly production of gold in the United States, by states, from 1914 to 1917, is as follows: (See table below.)

PRODUCTION OF GOLD IN THE UNITED STATES, BY STATES, 1914 TO 1917—*Inclusive*

	1914	1915	1916	1917	Rank
Alabama	$12,300	$5,100	$7,000	$4,200	17
Alaska	16,547,200	16,710,000	16,242,000	15,171,300	3
Arizona	4,568,900	4,555,900	4,378,400	5,533,800	6
California	21,251,900	22,547,400	22,110,300	20,815,900	1
Colorado	19,902,400	22,530,800	19,009,100	15,955,100	2
Georgia	16,800	34,800	20,200	6,000	15
Idaho	1,187,200	1,170,600	971,700	711,500	12
Montana	4,143,600	4,978,300	4,575,400	3,756,500	7
Nevada	11,536,200	11,883,700	8,428,200	6,922,900	4
New Mexico	1,219,100	1,460,100	1,403,000	1,025,100	11
North Carolina	130,300	170,700	29,700	15,700	14
Oregon	1,589,400	1,867,100	1,901,600	1,677,400	9
South Carolina	3,200	3,600	300	1,100	19
South Dakota	7,334,000	7,403,500	7,512,200	7,392,600	5
Tennessee	6,400	6,800	6,000	5,300	16
Texas	8,800	1,800	500	900	20
Utah	3,377,000	3,907,900	3,593,400	3,620,300	8
Virginia	300	500	1,300	1,700	18
Washington	587,800	461,600	491,800	434,900	13
Wyoming	6,700	13,900	83,800	200	21
Other states	200	....	....	100	23
Total	$93,429,700	$99,714,100	$90,765,900	$83,052,500	
Porto Rico	2,800	700	600	100	22
Philippines	1,099,300	1,320,900	1,549,600	1,404,000	10
Total	$94,531,800	$101,035,700	$92,316,100	$84,456,600	

Although there are enumerated in the foregoing table twenty-three states from which gold has been taken, the first seven in rank have produced 89.62 per cent of the total for the United States for the past four years.

These states are, in order, California, Colorado, Alaska, Nevada, South Dakota, Arizona and Montana.

As labor and supplies go up, so must the cost of mining gold be increased, and the purchasing power of gold decreased. An index as to the decreasing purchasing power of gold is obtained by noting some of the increases in cost of supplies used in its obtainment, some of which are given in the table below.

The advance in cost of hydro-electric power has been small. The cost of coal and petroleum varies in different localities, but, when necessary to use, is a serious advance in cost of operations under power cost.

	Per cent.
Labor ....about.	20
Steel (in California)..............40 to 280	
Manganese steel (largely used in dredging)	130
Explosives	75
Quicksilver	93
Lumber	125
Machinery, etc....................	75
Miscellaneous ....10 to 200	

Some companies with liberal margins between profit and loss can continue to work under present, or even much worse labor and supply conditions, but the excess war profits tax may so operate as to induce them to curtail outputs. Some of the mines working on very small margins are being closed down gradually and others may be kept going for a itme by reducing development work and up-keep of plant, and generally marking time while hoping for better future conditions.

GOLD STANDARD

Almost all countries of the world have as their financial basis the legal standard of gold. Only a few retain the double standard of gold and silver—Italy alone among the combatants.

Prior to the war, while there was freedom in trade and intercommunication between the different countries, the prices of various commodities were regulated both from within and without by the operation of the laws of supply, demand, and competition, and stabilized by the intrinsic value of gold.

As regards the stock of gold on hand in the world and the amount held by the United States, used as money and security, the following quotation is given from the report of the Secretary of the Treasury, 1917, page 24, viz:

The gold monetary stock (coin and bullion used as money) in the United States on November 1, 1917, is estimated at $3,041,500,000. The increase in the past 10 months has been $174,500,000; in the past three years $1,236,500,000, while in the past five years it has been $1,161,333,000. In five years the portion of the world's gold monetary stock held by the United States has increased approximately one-fifth to more than one-third.

This indicates that the calculation made previously of the gold reserve in this paper corresponds closely with the estimate of the Secretary of the Treasury.

Accepting $10,000,000,000 as the proper gold reserve of the world, it may be calculated that at the beginning of the war the gold reserve was 35 per cent of the total debts of the belligerents, while at the present time it is only about 8 per cent.

Discussion

When prices of labor and commodities are so advanced that it is not possible for the majority of the gold mines of the world to work at any profit, then labor and supply prices must become lower, or gold becomes automatically demonetized.

Gold coins can be considered storage cells of human energy, as to obtain them labor of hand and brain must be expended; in fact, they are thus charged with human electromotive force. They are able to give out strong genial currents of trade confidence, circulating and binding trade, and bringing together different industries and peoples in different lands; their value is not founded on the fiat of any one or more legislative bodies of one or more countries that may be experiencing fleeting prosperity, but they are certificates from nature of man's work and accomplishment.

The electro-motive force of the storage battery cells depends not only on the amount of the electricity poured into them, but also its pressure or intensity. In electrical parlance, the rate of flow is known as the amperes and the pressure the volts, the power the watts.

In the gold cells filled with human energy, the amperes can be considered the number of workers and the volts the forces and tools placed at the disposal of the workers by discovery, science, and organization. The watts may be considered the labor force stored in the cell of coin.

In the mention of the labor elements poured into the cells, it must be understood that labor should include the work of managers, engineers, metallurgists, chemists, overseers, mechanics, and other skilled laborers, as well as the more unskilled work of drillers, trammers, shovellers, etc.

The electric storage battery of cells can be rendered useless or burnt up by excessive charges of current; they can also dry out and stop working, or be feebly active should there be an insufficient number of cells on the circuit to do the work demanded.

Translating these conditions to the human electro-motive coin cell, the value of gold can be destroyed by its too great abundance and its too great ease of obtainment. History is almost uncanny in showing how visions of superabundance as seen or painted by owners and miners, have been doomed to disappointment, and how, considering time and averages, nature has demanded full toll in labor for her gold.

The electric storage cell can dry out and disintegrate unless refreshed with new current; this means that should the obtainment of new gold cease while drafts on the old coins are vastly increased, that the whole storage battery of gold energy may get so out of adjustment as not to do useful work and gold would become demonetized and the accumulated labor energy of centuries past, locked up in gold coins, become inert and valueless. Should all gold mining stop or very radically diminish this would be the result

As long as this country, or in fact any country, continues to measure values by a gold standard and pledge its credit on this basis, in the long run the cost of obtaining new gold supply must fix its limitations to the rise in wages and commodities. Gold is a sluggish governor and seems at times inoperative, but its plentifulness and cost of obtainment are ever operative though not the only factor in the rise and fall of prices.

The great value of gold coins is that they represent past labor achievements and cannot be duplicated in the future without equivalent labor effort. Promissory bills or notes, or contingent division of profits made by either governments, banks or individuals, can be made mere scraps of paper almost overnight by war, revolution or commercial failure, but for thousands of years gold, while showing fluctuation in purchasing power, has ever been valuable.

Our government securities and liberty bonds, pledged on a gold basis, take the place of gold coins only as long as the people in this and foreign countries have faith that the Government can make good its promises; when this is seriously doubted by the many, gold will go to a premium.

The great gold reserves of the past would not be so necessary if the recognition of the fundamental necessity of measuring gold values in units of labor necessary to win it were better recognized and insisted upon by governments that pledge their credit on a gold basis. Safely to lessen gold reserves while upholding the legal gold standard is the great financial problem of the day for this and other countries.

To attempt to adjust the value of the gold coin by changing its weight in fine gold by government fiat, would be to take away all intrinsic merit from the gold standard and result in confusion and utter lack of financial faith and confidence.

The temptation to enlarge obligations and thus reduce gold reserves to an inadequate amount and meet the difficulty by refusing to pay coin for gold pledges, also has great financial dangers.

The conception and definition of money has been one of the most fruitful subjects of disagreement, argument and books known to man. It would seem, however, that the main functions of money are first, facilitating exchange; second, a means of estimating comparative values of commodities.

The unreality of paper money is forced upon the writer by his study of the gold, the happenings of the time and the outlook for the future. Money must in a large measure be based on sentiment and good faith, for money, even including gold, has no intrinsic value except as an incentive or stimulant to future human enterprise, effort and labor. Its stored value vanishes when the mass of the people repudiate it. When faith in it gives out, those that may seize and wish to make new divisions will find only waste paper in the bonds, notes and securities so eagerly desired and coveted.

Money can be converted into reality only by working masses led by efficient officers, and who not only make use of the muscular energy of the masses, but harness into service all the impersonal obedient servitors that discovery invention science and engineering have placed at the command of man, and which force far exceeds all the muscular energy of man.

The payers of income tax in 1915 did not amount to more than one-third of 1 per cent of the population. The envied rich amount to only a fraction of this number. They may enjoy pride of possession in the paper showings of their bank deposits and lists of securities, also the power it gives, but their absorbing power of that which money can really give to them individually is very small and confined largely to what they and their families can eat, drink and wear. All other possessions they must share or pass on to others.

The rich are merely deflectors, gates or valves in energy currents. The greatest wealth by the individual has been obtained by organizing labor and producing the necessities of the many at the lowest prices and taking small profits per unit, but with the greatest number of units.

As labor in its broader sense has been organized and stimulated to produce a maximum amount of commodities, it provides for its own necessities and comfort as well as that of the few and makes possible a greater division of such commodities among themselves. Thus, great production is beneficial to the many as much, and in proportion more, than to the few.

The decennial census of 1910 shows that about 93 per cent of the male population of the United States, over 21 years of age is occupied in gainful pursuits. A far more difficult problem than the destruction of capital would arise among the workers should the present order of things be suddenly abolished, which would be how a fair, satisfactory, stimulating division of salaries and wages could be arranged and enforced among the workers, so that they would have more leisure and at the same time obtain more wants and necessities.

Any advance in wages of one class of workers must in fairness be followed by proportionate increases in the wages of other classes and as the laborer's wants and requirements for subsistence and comfort are dependable on his fellow-worker, so must the cost of his susistence increase as his own and other wages are raised. Thus, in the end no material gain can be obtained by labor unless there is some corresponding advance in the output of his work.

The Government at the present time is the greatest employer of labor and purchaser of commodities. The danger of allowing the prices of commodities to rise above the future cost necessary for obtaining gold, it is hoped has been made plain. Certainly the Government should insist on the stoppage of all classes of profiteering, but how is it possible to fix prices of any commodity and make low bids possible unless there is some limit fixed upon wages and salaries?

The war must be won and it will take money as well as men to accomplish it. However, it does not help matters to pledge credit unnecessarily to please or placate either labor or capital, and the more we get for money on a gold basis at the present time the less will be the burden of debts incurred on future generations, which must of necessity be paid by the mass of the people rather than the few.

The financial integrity of the country has been pledged on a gold basis. As 90 per cent of the gold output of the world comes from the Allies' territories, as a war measure it is plain that it is to the advantage of the Allies to uphold the gold standard. For the past ten years the world's yearly output of gold has been almost stationary, and the present high cost of labor and supplies are acting very seriously against any increased production.

To stop gold mining in a time of financial stress, as has been indicated, would be like closing the doors of a bank when a run is made upon it. It therefore must be evident that it is vital for this and all Allied countries to encourage gold mining as far as possible.

Unfortunately but little help can be directly extended to the gold industry, but as far as possible, encouragement should be given and the excess war profits tax placed upon this industry should be reconsidered, for while the war may have proved profitable to every other class of industry in the matter of earnings, certainly it has been seriously injurious to the gold industry.

Indirectly ,the gold industry, as well as new issues of Liberty Loan bonds, can be greatly helped by the reduction in prices of all necessary commodities, and this certainly should be serously, judiciously and fairly taken in hand by the Government.

The war is to be won by the efficiency, harmony and morale of the workers behind the firing lines as much as by the exercise of these qualities by the soldiers at the front. The right conception of what gold, and in fact money in any form, has the power of doing, or not doing, seems to the writer a matter of most vital concern at the present time. A better understanding of this problem, he believes, would tend to knit together governments, labor and capital and make for efficiency, harmony and happiness.

WORLD'S PRODUCTION OF GOLD, 1912 TO 1916, INCLUSIVE
(Compiled from the reports of the Director of the Mint, U. S. Treasury Department.)

	1912	1913	Per cent	1914	1915	1916
North America:						
United States..	$93,451,500	$88,884,400	19.3	$94,531,800	$101,035,700	$92,590,300
Canada.......	12,648,800	16,598,900	3.6	15,925,000	18,977,901	19,234,976
Mexico........	24,500,000	19,308,800	4.2	19,308,800	6,559,275	7,690,707
Central American States.......	3,030,400	2,721,700	.6	2,293,800	2,970,271	3,517,597
South America:						
Argentina...	107,300	2,600	.0	2,600	....	6,330
Bolivia and Chile.......	175,000	175,000	.0	175,000	814,418	396,922
Brazil.........	3,570,600	2,254,700	.5	2,698,200	2,424,515	2,424,515
Colombia.....	2,971,700	2,971,700	.6	4,678,600	5,453,148	6,173,867
Ecuador.......	406,500	406,500	.1	406,500	545,674	545,674
Peru..........	492,200	492,300	.1	492,300	1,109,891	1,179,537
Uruguay......	111,000	29,900	.0	29,900	11,836	11,836
Guiana:						
British......	879,800	1,353,500	.3	1,126,500	923,892	767,525
Dutch......	407,300	470,400	.1	503,400	449,054	438,223
French......	3,050,600	3,050,600	.7	3,050,600	1,959,793	1,959,793
Venezuela.....	623,500	444,800	.1	444,800	1,395,349	1,424,930
Europe:						
Austria-Hungary	2,043,200	2,179,300	.5	2,179,300	1,392,465	1,392,465
Finland.......	....	900	.0	900	....	....
France........	1,812,100	2,127,400	.5	2,127,400	1,400,000	1,000,000
Germany......	78,100	135,600	.0	135,600	....	....

WORLD'S PRODUCTION OF GOLD—*continued*

	1912	1913	Per cent	1914	1915	1916
Great Britain	$ 27,800	$ 17,900	.0	$ 17,900	$ 19,266	$ 19,142
Greece	....	....	.0	....	....	....
Italy	11,000	17,200	.0	31,100	2,295	2,295
Norway	....	....	.0	....	....	....
Portugal	2,300	2,300	.0	2,300	661	661
Russia	22,199,000	26,507,800	5.8	28,587,000	26,322,746	26,322,746
Servia	251,100	328,000	.1	116,000	....	....
Spain	....	....	.0	....	....	....
Sweden	20,300	17,600	.0	17,600	25,323	25,323
Turkey	500	500	.0	500	475	....
Australia:						
British New Guinea	....	377,200	.1	377,200	....	....
New South Wales	3,416,900	3,093,200	.7	2,573,800	2,738,958	2,235,556
Northern Territory	110,300	64,500	.0	52,300	20,351	17,281
Queensland	7,192,700	5,493,200	1.2	5,134,800	5,161,911	4,447,793
South Australia	136,300	135,500	.0	129,200	125,701	86,399
Victoria	9,925,200	8,990,800	1.9	8,541,900	6,802,359	5,305,282
Western Australia	26,514,900	27,165,700	5.9	25,487,800	25,014,928	21,941,044
New Zealand	6,428,100	7,102,700	1.5	3,870,700	8,740,567	6,048,992
Tasmania	785,000	690,400	.2	542,500	383,402	326,408
Asia:						
British India	11,055,700	12,178,000	2.6	11,378,400	11,522,457	11,206,509
China	3,658,900	3,658,900	.8	3,658,900	2,804,692	2,804,692
Chosen (Korea)	2,852,600	3,582,500	.8	3,306,600	3,739,477	4,122,351
East Indies:						
British	1,352,000	1,352,000	.3	1,352,000	3,100,000	3,100,000
Dutch	3,387,100	3,387,100	.7	3,387,100		
Federated Malay States	....	282,400	.1	269,100	351,527	327,871
Formosa (Taiwan)	....	814,600	.2	814,600	1,143,017	1,001,178
Indo-China	74,700	74,700	.0	74,700	43,659	65,620
Japan	4 467,000	3,614,400	.8	3,614,400	5,386,066	5,386,066
Siam	56,500	56,500	.0	56,500	....	....
Africa:						
Abyssinia	....	497,200	.1	497,200	....	....
Belgian Congo	....	916,600	.2	916,600	1,029,189	1,029,189
Egypt	....	95,100	.0	126,800	144,910	144,910
French Colonies	2,044,600	....	.0	....	....	....
French East Africa	....	....	.0	....	43,414	43,414
German East Africa	....	253,200	.1	253,200	....	....
Madagascar	....	1,256,200	.3	1,075,900	1,381,354	964,980
Rhodesia	14,226,900	14,274,700	3.1	17,423,100	18,915,324	19,232,165
Sudan	....	192,700	.1	242,800	....	....
Transvaal, Cape Colony and Natal	188,293,100	181.885,500	39.5	173,560,000	188,033,156	192,182,902
West Africa (Nigeria, Gambia, Gold Coast, and Sierra Leone)	7,286,000	7,955,300	1.7	8,075,100	8,304,551	7,860,079
Total	$466,136,100	$459,941,100	100.00	$455,676,600	$468,724,918	$457,006,045

NOTE.—The percentages given are based on the 1913 production with normal mining conditions, when the Allies produced 91.3 per cent; the Central Powers .6 per cent and the Neutral countries 8.1 per cent.

Current Federal Legislation

Up to May 1 there had been introduced in the present session of Congress 16,339 bills and 435 resolutions. Of these, 4,470 bills with 150 resolutions were introduced in the Senate and 11,869 bills with 285 resolutions were introduced in the House.

The following bills introduced during the month of April will be of interest to the mining fraternity:

S. 4292 introduced by Senator Pittman anthorizing the melting or breaking up of 350,000,000 standard silver dollars held in the Treasury for the purpose of conserving the gold supply of the United States, the settlement in silver of our adverse trade balances, to provide silver for subsidiary coinage and for commercial use, and to stabilize the price and encourage the production of silver. This bill was introduced in the Senate on April 9 and passed April 18. It was brought up under a privileged resolution in the House on April 22 and passed the same day, and was signed by the President on April 23. Further reference to the bill is made in this issue of the Mining Congress Journal.

S. 4311 by Mr. Henderson provides for the appointment of a commission of three members to prepare a tentative code of laws providing for the location, devolopment and disposition of mineral lands and mining rights in lands in the United States and Alaska as are best suited to existing conditions and will correct defects and supply deficiencies in existing general laws. The bill requires that two members of the commission shall be lawyers of large experience in the practice of mining law and the other a mining engineer who shall have had practical experience in the operation of mines.

S. 4312 introduced by Mr. Henderson provides for the amendment of Section 3 of the Act of May 10, 1872, so as to give to locators of all mining locations heretofore made or hereafter made, on any mineral vein, lode or ledge situated on the public domain, where no adverse claim exists, the exclusive right of possession of the surface and subsurfaces within the lines of their location and of all veins, lodes and ledges throughout their entire depth inside of such surface lines downward.

H. R. 11259 introduced by Mr. Foster has for its purpose the encouragement of the production, conservation of the supply and control of the distribution of those rare and precious metals which have formerly been largely imported or of which there is an inadequate supply. The bill as introduced provides that the Secretary of the Interior, with the approval of the President, shall have the power to license the manufacture or mining of these metals, to fix prices, and, if necessary, to limit their use or production. The bill passed the House on April 29, but has been so amended as to eliminate the price fixing power of the President and reduced the original appropriation of $50,000,000 to $10,000,000. It has been referred to the Senate Committee on Mines and Mining.

F. L. RANSOME

Who just has returned from an extended trip during which he visited practically every quicksilver mine in the country.

H. R. 11516 introduced by Mr. Chandler of Oklahoma provides for the levying of a duty upon imports from foreign countries of lead and zinc ore and manufactured products containing lead and zinc. The bill has been referred to the Committee on Ways and Means of the House.

H. R. 11580 introduced by Mr. Mondell provides for an appropriation of $35,000 for the purchase of a new mine rescue car with complete equipment for the mine rescue station at Rock Springs, Wyoming.

H. R. 11581 also introduced by Mr. Mondell provides for an appropriation of $40,000 for establishing a mining experiment station under the Bureau of Mines at Sheridan, Wyoming, for investigation and demonstration in the utilization and use of lignite coals.

ORDERS FOR DOMESTIC COAL BEING PLACED EARLY

The Fuel Administration is greatly encouraged by reports from many parts of the country as to the progress of its campaign for the early ordering of next winter's supply of coal by both domestic and industrial coal consumers, particularly in the eastern part of the country. A flood of orders for next winter's coal supply is reported. Both coal producers and retailers report orders filled vastly in excess of the supply available for immediate delivery.

With millions of tons ordered, of course it has been impossible to effect complete deliveries. This has given rise to some complaint among those who are patriotically responding to the requests of the Fuel Administration and have sought to lay in their winter's supply. It will be readily appreciated, however, that the mines cannot produce, and the railroads cannot deliver the whole annual coal-supply of the country within a few weeks. The Fuel Administration, however, will exert every effort to expedite deliveries and to effect the distribution of a maximum amount of coal during the summer months.

With the country's coal supply largely ordered ahead, the Administration will be in a position to act promptly and facilitate the movement of an adequate supply of coal to meet the demand. The railroads will be enabled to judge of the traffic facilities which must be made available for aiding coal production and for distributing the supply.

The fact that consumers cannot secure immediate delivery should not deter them from placing their orders at once. These early orders once on the books become the basis for the determined drive to secure an adequate production and prompt distribution.

Promptness in ordering and patience in awaiting deliveries are needed as a basis for the cooperation of the whole country with the Fuel Administration in its effort to do its share of the nation's war-work.

Virginia Prices Announced

Further classification of prices of bituminous coal are as follows:

Mines operataed near St. Charles, Lee County by the Darby Coal Mining Company; Black Mountain Mining Company; Virginia Lee Co., Old Virginia Coal Company; United Colleries Company; Benedict Coal Corporation and the Imperial mine of the Virginia Iron, Coal & Coke Company, Roanoke, Va:

Run of mine, $2.65; prepared sizes, $2.90; slack or screenings, $2.40.

The prices do not include the 45 cents per ton allowance to operators who have complied with the terms of the wage advance agreement.

SALT LAKE CITY ENACTS A BLUE SKY ORDINANCE

The City of Salt Lake has adopted a Blue Sky Ordinance.

The city's legal department found that the city had authority to define and regulate the business of stockbrokers and the new ordinance takes the form of regulation of that business.

The proposition was discussed between representatives of the city and stockholders before its enactment and in its present form is substantially as agreed upon between the city and the brokers who met with the city officers. It was suggested that the ordinance be used as a basis of a bill to be introduced in the next legislature.

Since the ordinance has been in effect, however, the situation that has invariably followed blue sky legislation has developed in a measure. Enacted, of course, with the intent to prevent and discourage the operations of dishonest promoters, it has been found that the ordinance can readily be construed to cause loss and annoyance to legitimate operations in securities and there is already some sentiment in favor of amendment of the ordinance.

The operation of the new ordinance is observed with interest in the hopes that it may disclose conditions and experiences sufficient to permit the framing of a state law that would give the public adequate protection against frauds without, at the same time, seriously hampering legitimate development of new business enterprises.

March Banner Month

March was the banner month in the history of the anthracite industry as is indicated in the record of shipments as reported to the Anthracite Bureau of Information at Philadelphia. The shipments for last month amounted to 7,276,777 tons, an increase of 1,464,695 tons over February and of 287,702 tons over the corresponding month last year. They exceeded by 165,827 tons the October, 1917, shipments which, until now, represented the high-water mark in monthly shipments.

For the coal year ending with March, 1918, the total shipments were 77,752,315 tons, an increase of 9,975,726 tons, or more than 14 per cent over the preceding coal year. These increased shipments have been sent to market despite a labor shortage of about one-seventh of the normal working force in and about the mines. They indicate the success that has followed the efforts of the operators to maintain maximum production during the first year of the war. The mine workers have cooperated with the companies in making possible these new production records, and the grand total of March shipments was made possible through the men and boys working steadily during all of Holy Week.

ALL STEEL TANK RECOMMENDED HIGHLY

Best for Oil Storage, Says Bureau of Mines Specialist After Careful Study of the Question

After extended study of the oil storage problem, C. P. Bowie, of the Bureau of Mines, announces his conclusions as follows:

"The best all-round container in use at the present time for storing oil is the all-steel tank of gas-tight construction.

"Tanks that are used for the accumulation of fresh oils from the well should invariably be of this construction, and, as a rule, it will probably pay to equip them with water-seal tops, if not, also, with some form of tile encasing or lagging.

"Other devises for lessening the temperature of the oil in the tanks that can be cheaply applied and economically maintained, such as sprinkling with water in hot weather and painting the tanks white, are worth while.

"To store gasoline or light distillate in tanks that have not tight tops is the height of folly, and it is poor judgment not to use some type of cooling device.

"Large concrete-lined reservoirs, as at present constructed, should not be used for the storage of fresh oils or of light oils.

"It will pay to line a reservoir with concrete even though heavy oil only is to be stored.

"In most cases it would probably pay to put a concrete roof on the reservoir and cover it with earth—at least such a type of structure is worthy of consideration, regardless of the gravity of the oils to be handled.

"Concrete, if properly proportioned, mixed, poured, tamped, and floated can be made impervious to heavy oils without the addition of so-called 'oil-proofing' compounds.

"Contrary to popular engineering opinion, expansion joints are not necessary in properly constructed concrete linings for oil reservoirs in temperate climates, and no injury will result to the linings from their omission if the reservoirs be kept reasonably full of oil, or if, when the tanks are not in use, they are kept partly filled with water.

"If crude can be refined at any profit, it should be put through the refinery as soon as possible after it is taken from the wells. If refining will not pay, the period of storage should be as short as possible because, so far as the oil is concerned, each day of storage will entail a loss."

The writer further states that particular care should be used in making tank grades, as a tank built partly on filled ground and partly on excavated ground is liable to be disrupted at the point where the foundation goes from cut to fill. It is the best policy to fill the entire area to approximately the same depth so as to insure uniform settling. The "gas-tight" steel tank is admittedly the largest practicable type now in use in the different fields, and specifications for such a tank of 55,000 barrel capacity of steel construction throughout are given in the bulletin. These specifications are very valuable in determining the proper construction for such a tank.

The writer points out that although the modern steel tanks in use today are capable of withstanding the pressure from within, proper attention is not paid to the wind stresses. It is very essential that, even though very few steel roofs have collapsed during a wind storm, precaution should be taken for overcoming wind stresses. The so-called "sand-line construction" is the most efficient for this purpose as the cost is reasonable and the method effective and easily applicable. Tank roofs, size of plates, swing pipes, swivel joints for swing pipes, explosion doors, and vacuum relief valves, are described in considerable detail.

Owing to the uncertainty of the market price of manufactured products, the future cost of tanks is difficult to ascertain. At the time of the outbreak of the war in August, 1914, a steel tank with steel roof could have been built for a cost of from 30 to 32 cents a barrel, but today such a tank would cost from 42 to 45 cents a barrel. Wooden roof tanks three years ago cost from 25 to 27 cents a barrel, but eth same tanks are now worth 37 to 40 cents a barrel.

Concrete lined reservoirs are given considerable attention. The particular container described has an extreme outside diameter of 488 feet, a total depth of about 25 feet, and a slope on the sides of 1 to 1. In selecting the site for such a reservoir it is essential that the soil should be of homogeneous mixture, preferably a sandy clay, in which clay predominates. The chooser of the site should also be certain that the area is well drained.

The following interesting facts are set forth:

The expansion joints are not necessary and have not proved satisfactory.

Temperature variations throughout the year in a storage reservoir filled with oil are surprisingly small.

The oil penetrates the concrete lining to no appreciable extent.

The cost of a reservoir varies from 10 to 13 cents a barrel.

The bulletin gives interesting data regarding the comparative life of reservoirs and steel tanks the losses in storage by seepage, and evaporation with a discussion of advices used for lessening of evaporation losses and of water-seal tops.

Copies of this publication may be obtained by writing the Director of the Bureau of Mines, Washington, D. C.

Wyoming Prices

Maximum prices at which sub-bituminous coal may be sold at the mines in Wyoming being confirmatory of action already taken by the Federal Fuel Administrator for Wyoming, are: Egg run, $2.15; nut run $2.

KOEPLER HEADS ORGANIZATION OF SMOKELESS COAL OPERATORS

W. E. E. KOEPLER

The announcement is made that W. E. E. Koepler has been appointed commissioner of the Association of Smokeless Coal Operators with headquarters at Bluefield, W. Va.

For the last two years Mr. Koepler has been in charge of the financial and commercial advertising on the Public Ledger, Philadelphia. In this department he was brought in touch with the advertising programs of building materials, chemicals, coal, textiles, and so on.

Prior to that he had extensive experience with the coal industry. For seven years he represented the Black Diamond in the east, first as an advertising solicitor from the New York office and then as manager and eastern editorial assistant in Philadelphia. Following this experience he joined the advertising forces of the Colliery Engineer and when that paper was sold to the Hill Publishing Company he went with Coal Age where he remained for six months.

Mr. Koepler was graduated from Westminster College in the arts course. He is a member of the Phi Delta Theta Fraternity.

He is a member of the Engineers' Club of Philadelphia, Coal Club of Philadelphia, and the Machinery Club, of New York.

In his new position he will be concerned with the economic problems in coal and will have mostly to do with production.

KENTUCKY, VIRGINIA, TENNESSEE, IOWA AND GEORGIA PRICES

New prices have been announced by the Fuel Administrator as follows:

Kentucky—Harlan, Perry, and Letcher counties and operations in Pike county on the Levisa Fork of the Big Sandy River: Run of mine, $2.20; prepared sizes, $2.45; slack or screenings, $1.95. (The former prices for this field were $2.40, $2.65, and $2.15, respectively.)

East of the 85th degree of longtitude, except Harlan, Perry, and Letcher counties and operations in Pike county on the Levisa Fork of the Big Sandy River: Run of mine, $2.65; prepared sizes, $2.90; slack or screenings, $2.40. (Because of rearrangement of parts of this field comparative prices are not available.)

Tennessee—All except Overton and Fentress counties: Run of mine, $2.65; prepared sizes, $2.90; slack or screenings, $2.40.

Overton and Fentress counties: Run of mine, $2.20; prepared sizes, $2.45; slack or screenings, $1.95. (Former prices in Tennessee were $2.30, $2.55, and $2.05, respectively.)

Virginia—Lee, Wise, and Dickinson counties, and Russell county west of Finney on the Norfolk & Western Railway: Run of mine, $2.20; prepared sizes, $2.45; slack or screenings, $1.95. (Former prices $2.00, $2.25, $1.75, respectively.)

Iowa—Marion county: Run of mine, $2.70; prepared sizes, $2.95; slack or screenings, $2.45. (Prices for this field were announced on March 11, last, but the matter was reopened with the result that a new schedule of prices was named. The prices fixed in the order of March 11 were $2.75, $3.10, and $2, respectively.)

Georgia—Run of mine, $3.25; prepared sizes, $3.50; slack or screenings, $3.20.

The Georgia field covers a very limited area and was not included in former prices regulating the coal industry.

Operators who have complied with the wage advance agreement will be entitled to add 45 cents per ton to the prices named in the official orders.

FUEL ADMINISTRATION TO STAY IN WASHINGTON

The United States Fuel Administration denies emphatically that it was planned to move the headquarters of the Administration from Washington.

United States Fuel Administrator Garfield today authorized the statement that published reports dealing with rumors that the Administration was to leave the Capital was without foundation.

CHAS. PHILIP COLEMAN WELL FITTED FOR NEW POST

The recent election of Charles Philip Coleman as president of the Worthington Pump and Machinery Corporation calls attention to this large industrial enterprise and to the new executive, who has had an experience which exceptionally fits him for the position.

Mr. Coleman advances from the position of vice-president, held since May, 1916, to the presidency. He was, prior to that date, receiver of the International Steam Pump Company and Associate Companies, which have now been reorganized into the present corporation, which owns and controls some of the best equipped works in the country and is the leading interest of the world in pumping machinery and affiliated lines.

Mr. Coleman was born in Baltimore, both branches of his family dating back to English colonists who settled in this country during Colonial times. His education was begun in Baltimore and continued at the Virginia Military Institute and the Shenandoah Valley Academy at Winchester. Later he entered Lehigh University, from which he graduated with the degree of M. E. After leaving the university he entered the employ of the Lehigh Valley Railroad Company and continued with that company in the various positions of car agent, chemist, engineer of tests, assistant to general superintendent and general storekeeper, until 1903, having left the Lehigh for two years during this time to serve the Bethlehem Steel Company as purchasing agent and assistant to the president. Later he was made general purchasing agent of the Lehigh, with headquarters in New York.

The Worthington Pump and Machinery Corporation, of which Mr. Coleman has just become president, has been and is now very active in its service to the Government, covering large and important lines of product. The corporation, with its eight large works in this country and a European works, is in an unusually good position to be of great assistance to both the United States and its allies, and the equipment and size of its various works have permitted of taking on responsibilities amounting to millions for war work, and yet handle its heavily increased regular business satisfactorily.

While the principal business of the corporation is pumping machinery in all its varied types and developments, yet the capacity of its shops is such that the war work above referred to has been handled in most satisfactory shape and still other and promising lines of regular manufacture added.

The standard products, aside from pumping machinery, cover mining and concentrating machinery, oil and gas engines, air compressors, gas power engines and blowers, crushing and cement equipment, water works engines and special machinery.

PERSONALS

Judge J. J. Shea, of Oklahoma, is a frequent Washington visitor.

B. Britton Gottsberger, of Miami, Arizona, who has been spending some little time in the East, has returned to his home.

T. L. Lewis, of West Virginia, was in Washington several days the latter part of April.

Falcon Joslin is again in New York after spending several weeks at Seattle, Wash.

Henry R. Harriman has returned to Washington after a hurried trip to the western coast.

Louis C. Schultz, of Boulder, Colo., has returned to his home after spending several weeks in the East.

According to Representative Hull, of Tennessee, the war has cost in excess of $100,000,000,000—a cost of $60 each for every man, woman and child on the globe.

The General Industries Corporation has changed its name to the duPont American Industries, Inc., and increased its capital from $25,000,000 to $50,000,000. This corporation covers the industries affiliated with the duPont Powder Company.

According to C. Vey Holman, state geologist for Maine, the big gun now bombarding Paris from the German lines is a gun of molybdenum steel, probably throwing a tungsten-molybdenum projectile, propelled by high explosives ranking in force ahead of any hitherto nitrated and stabilized by the trioxide of molybdenum so as to be usable.

According to The American Daily Steel and Iron Report, the three and one-half years of war have caused increase of $111,700,000,000 in public debt of twelve leading warring nations of which $72,400,000,000 represents the Allies' debt increase, and $39,300,000,000 that of Central Powers. United States debt incurred since beginning of war is $6,555,000,000; British increase $24,178,000,000; Russian, $20,291,000,000; French, $15,529,000,000; Italian, $3,884,000,000; German, $24,243,000,000; Austrian, $15,033,000,000.

In a bulletin mailed throughout the Seventh Reserve District, by the Liberty Loan Committee, the farmers are accused, as a class, of being Liberty Loan slackers. The bulletin declares that the farmers undersubscribed their share of the first and second loans, despite the fact that enormous profits have been assured them, and that the taxes fall lightly on them, as compared to business men and workers in industrial centers. The bulletin accuses the farmer of being a "profiteer," saying that he receives 56 per cent more for his meat than in 1914, 77 per cent more for his garden and dairy products and 86 per cent more for other products.

ZONE CHANGES TO RESTRICT RATHER THAN TO EXPAND

The Fuel Administration has been advised that coal consumers in some sections of the country are withholding their orders for coal in the expectation that the zone of distribution may be altered in a way that will broaden their sources of supply. It should be understood the administration says, by coal producers, coal dealers and coal consumers that the regulations carrying out the "zoning order" of the distribution of coal consumption were adopted in conjunction with the Railroad Administration, after the most careful study of the whole problem.

Any modifications of the zoning plan that may be made will be in the direction of further restriction rather than toward enlarging the sources of supply, it is declared. War demands for coal as the year advances may demand still further restrictions of the consumer's freedom to choose coal.

There should be no further delay upon the part of the coal dealers and coal consumers in placing their orders for their coal supply. Patriotism demands that orders may be placed at once in order that the railroads may realize the exact transportation movement demanded for coal, and in order that production may be maintained at a maximum, is the advice given by Dr. Garfield.

Anthracite Mines Get More Labor

Strenuous efforts of the anthracite industry to get more men, greatly needed to increase the output of coal, coupled with the topnotch wages paid in the region since December 1 and the full working time open to all mine-workers, have resulted in recruiting 3,098 men for the anthracite army.

From the average normal working force of 177,000 mine-workers before the war, the number was drawn down to 152,076 by draft and other causes in September, 1917. It stood 155,174 in February, 1918.

Outstrips 1917 Production

Production of bituminous coal (including that coked) in the first three months of 1918 is estimated at 135,514,000 net tons, an estimated increase over the same period in 1917 of 744,000 tons, or one-half per cent, but a slight decrease compared with the same period of 1916. January, 1918, mainly because of severe weather, was an abnormally low month, the production, 43,769,000 tons, being about 4,000,000 tons lower than January, 1917, and nearly 2,000,000 tons below January, 1916.

Production in February, 1918, was 3,245,000 tons greater than in February, 1917, but 1,630,000 tons less than in February, 1916. At the end of February production in 1918 was three-quarters of a million tons behind 1917, and 4,457,000 tons below the first two months of October and November, 1917.

March, 1918, was a record month, exceeding both March, 1917, and March, 1916, and was exceeded in total tons in those years only by October, and November, 1917.

Zone Territory Modified

Under an order modifying the zone system of bituminous coal distribution, bituminous coal originating on the Pennsylvania Railroad, Monongahela Railroad, and Huntington and Broad Top Mountain Railroad, and their short line connections, in the States of Pennsylvania, West Virginia, and Maryland, when routed via the Pennsylvania Railroad, is embargoed from Baltimore and Washington markets.

To meet this situation, the United States Fuel Administration will arrange for the essential supply to the points designated from mines on the Baltimore & Ohio Railroad, the Western Maryland Railroad, and their connections, which lines afford a much more direct route to these points. As a consequence, a vast amount of time and mileage will be saved to the Pennsylvania lines, thus assuring an increased movement of coal to points in eastern Pennsylvania, New Jersey, and New England.

Price on Coke for Far West

An increase of 5 per cent in the basic price of coke manufactured east of the Mississippi River and sold west of the Rocky Mountains was authorized by an official order promulgated by the United States Fuel Administration.

The order is intended to facilitate the movement and distribution of coke, the increase in price being granted with a view to meeting the additional expense necessarily incurred in merchandising coke in that section of the country. The order follows:

"That in all cases of sale of coke, manufactured east of the 94th meridian, to consumers located west of the 115 meridian, where the seller assumes the responsibility for the quality and delivery of such coke, and extends credit to, and carries the account of the purchaser in accordance with the usual trade practices, there may be added 5 per cent to the established price of coke f. o. b. cars at the point of manufacture."

Agree to Curtail Production

Representatives of the Automatic Machine Bottle Manufacturers' Association have voluntarily agreed with the United States Fuel Administration to curtail their production of less essential articles, both in the interest of fuel conservation and to give the utmost possible opportunity for the manufacture of glass jars and other food containers.

Specifically, those bottle manufacturers who are not occupied entirely with the manufacture of food containers will curtail their total output 15 per cent, the curtailment to be effective in the less essential portion of their production.

NOTABLE ADVANCES MADE IN MINING IN CALIFORNIA

Mining in California is assuming wider and more varied proportions at the present time than ever before in the history of the state. The output for the past year, as estimated by the State Mining Bureau, will approximate a figure more than double the value of the gold production which was recorded during 1852, which was the record year in the days of gold when California's fame was based on mining and nothing else.

Among other activities undertaken by State Mineralogist Fletcher Hamilton through the medium of the Bureau, there has recently been completed a series of county reports covering the mineral resources of all sections of the state in detail. As a means of broadening the scope of this work, Mr. Hamilton is now placing copies of these reports in the hands of every high school principal in California. In addition, he is preparing collections of California minerals which will be arranged and classified, and those specimens will also be sent to the higher grade schools as soon as they are available for distribution.

The steps taken in this direction should have an important educational value, and will no doubt result in assisting, to some extent at least, not only the development of California mineral resources, but in broadening the view of many citizens of the state who may be chiefly interested along other lines.

Wagon Mines Denied Increase

Operators of wagon mines will not be allowed to add the cost of hauling to the government price when the coal is loaded into open-top cars, except when such coal is bought by a railroad for its own use.

This decision of the United States Fuel Administration affirms the rulings promulgated by it October 6, 1917, under which operators of wagon mines are permitted to make a charge of not more than 75 cents, in addition to the government price, when delivering direct to the consumer, or when loading into box cars.

Representatives of the wagon mine operators sought to induce the Fuel Administration to make a similar allowance for loading into open-top cars. They based their request upon the claim that congestion of the railroads has been relieved sufficiently to justify the use of open-top cars by wagon mines, and that the cost of hauling was the same whether the coal was loaded into box cars or open-top cars.

Investigation of the situation, however, has satisfied officials of the Fuel Administration that the demand for open-top cars, by mines that can load only into that kind of cars, still exceeds the supply. Under the circumstances, therefore, it was decided that production would be stimulated best by restricting the allowance for hauling to those wagon mines loading into box cars.

Prices Named at Various Coke Ovens

Maximum prices at which coke may be sold at various ovens have been announced in an additional regulation issued by Fuel Administrator Garfield. The regulation makes the following prices:

For coke made at Coalmont, Tenn., \$7.25 for blast furnace coke and \$8.25 for 72-hour special or selected foundry coke.

For that made from coal from the Pratt seam in Alabama, \$8.00 for blast furnace coke and \$8.75 for 72-hour selected foundry coke.

For coke made in Marion and Harrison counties, West Virginia, \$6.25 for blast furnace and \$7.25 for 72-hour selected foundry coke.

For coke made in Barbour and Randolph counties, West Virginia, \$6.75 for blast furnace and \$7.75 for 72-hour selected foundry.

For coke made in the State of New Mexico, \$8.50 for furnace and smelting coke and \$9.50 for 72-hour selected foundry.

Index to Advertisers

(Continued from page 5)

Irvington Smelting & Refining Works . 29
Jeffrey Mfg. Company, The .... Cover
Laubenstein Mfg. Company 31
Ledoux & Company, Inc 29
Leetonia Tool Company, The 31
Lehigh Coal & Navigation Co., The 40
Longyear Company, E. J 29
Macomber & Whyte Rope Company ... 14
Machinery Warehouse & Sales Co 34
Marioneaux, Stott & Beck 33
Monongahela Wood Preserving Co 31
Morse Chair Company .... Cover
Mudd, Seeley W 33
Nicholson & Co., W. H 33
Ohio Brass Company, The 23
Ohio Grease Company, The 27
Pacific Tank & Pipe Company 21
Payne, Henry Mace 23
Phelps-Dodge Corporation 29
Phillips Mine & Mill Supply Company .. 17
Pitkin, Lucius, Inc 29
Pneumelectric Machine Co., The 16
Professional Cards 33
Prox Company, The Frank 25
Randle Machinery Company, The 31
Richards, J. W 33
Roebling's Sons, John A 14
Ruhl & Stewart 33
Standard Scale & Supply Co., The 17
Stephens-Adamson Mfg. Co 18
Taylor, Samuel A 33
Thorne, Neale & Company, Inc 40
Tout & McCarthy 33
Union Electric Company 21
Vulcan Iron Works 6
West Virginia Rail Company, The 31
Western Chemical Co., The 33
Wilmot Engineering Company 31
Wier Frog Company 23
Wood Equipment Company, The 8
Worthington Pump & Machinery Corp. .6
Wyoming Shovel Works 3

Vol. 4. No. 6 Washington June, 1918

THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

THE PRICE OF COPPER

At the recent conference of copper producers with the War Industries Board in Washington, it was decided to continue the price of 23½ cents on copper for seventy-five days with the understanding that another meeting with copper producers would be held on August 7 to consider the price at the termination of the present period. The smaller copper producers were greatly disappointed at this decision as their mines had been kept in operation at a loss in anticipation of an increase in price, and much dissatisfaction was manifest. While the price fixed will permit the large companies to continue production at a reasonable profit, it is feared that many of the smaller operators will be forced to discontinue operations. In the face of the fact that the present available supply of copper is sold well in advance, the outlook is not hopeful.

In the face of the shortage of copper any plan which entails the shutting down of the smaller producers is dangerous if not disastrous. The world consumption of copper is continuously growing notwithstanding the fact that industrial enterprises are consuming less and the war demand is calling for more of the metal. If the output is to be sufficient to meet the emergency needs of the Government as well as to supply its industries, all of the copper mines of the country should be kept in active operation.

It was brought out at the recent hearing that one of the larger copper companies in order to increase its production has very largely increased the cost, and that the price fixed by the Government was not sufficient to permit this accelerated production and still leave a profit. In other words, the speeding up of the industry, so as to meet the war demand, naturally increases the cost of production. In this particular mine it was shown that an increase of one-third above normal production had reduced the saving from 71 per cent to 62 per cent of the metal content of the ore. If the government price is to be fixed below a proper cost, companies must either stand a loss or reduce production.

It is frequently urged that because the production of metal per man employed is so much less in the small mines than in the large ones that it is wise to close up the small mines and use all available labor in the large mines. If an early termination of the war could be assured, this argument would be conclusive. But as this cannot be assured, it may easily result that the development of the small mines to the point where a large production is possible may be the most important war work in which those forces may engage.

Mining Congress Journal has frequently urged that price is the real incentive which brings forth production in any line, notwithstanding the fact that in more lines than one increased production is to be credited to patriotic sentiment where the price was not attractive It is hoped that this feeling will induce many to continue operations, and yet it would seem that the price fixed should be such as to permit the high cost mines to operate, even though this might permit an undue profit to cheaper mining operations.

The War Excess Profits Tax Law in its present form takes back in many instances as much as 80 per cent of the net profits, and it is probable that the proposed new Revenue Law will take a still larger percentage of these earnings. Under these conditions, it would seem that to permit the large operators to make an extensive profit to be taken back by taxation, offers one of the best means through which the Government may raise the money necessary for its war operations.

This plan would permit the production of sufficient material to meet the war demands and prevent much of confusion, to say nothing of the disastrous consequence of being short of necessary war materials. MINING CONGRESS JOURNAL believes the policy of price fixing to be a dangerous policy in the face of the need of an increased production in all lines. With the diminishing man power as applied to industry, we shall need to have every agency made efficient to its limit, and any restriction not necessary to protect the public will be found detrimental to the public interests.

THE IMPORTANCE AND THE RESPONSIBILITIES OF LABOR

The dignity of labor; the importance of labor; the responsibilities of labor are being intensified just in proportion to the number of men withdrawn from labor's ranks for special duties connected with the war program.

The machinery which makes labor many times more effective must be operated by labor no matter how small the amount required. Hydro-electric power is theoretically the cheapest of all because after the installation costs are met it is to a great extent self-operating. Even this power requires constant supervision in order that it may be applied to useful rather than destructive purposes. The greatest interference with the productive power of the nation since the beginning of the war grew out of the shortage of fuel. It was not so much that the mines could not produce the coal as that the railroads were unable to furnish the cars into which the coal must be loaded at the time of production, and which must be hauled away from the mine at once in order to make place for other cars to take the following day's production. The transportation companies were unable to furnish the cars, yet there were thousands of cars needing repairs which a small amount of labor would have made available. The transportation companies were unable to haul the cars because of a lack of motive power and yet they had hundreds of disabled locomotives which the shops were unable to repair because of the shortage of men in the repair shops.

Freight congestion at the terminal results in tieing up and impeding the progress of freight movements over a large part of a railway system. The greatest efficiency can only be obtained when all the intricate machinery of production, transportation and exchange shall each perform its function at the proper time.

Increased man-power or increased effectiveness of our present man-power is absolutely essential if we are to meet the requirements of the present situation. In the present world stress the responsibilities and the duties of labor should receive consideration before its right and its dignity.

The same principle should apply to capital and labor. Each should be required to give to the government to the extent of its requirements and its ability to serve. The effort to convince the public that labor is being conscripted for war purposes while capital is exempt has no basis in fact and as an abstract proposition is entirely unfair. The sons of rich and poor alike are conscripted for army service. We have yet to hear of even a suspected case where wealth has secured the exemption of any able-bodied young man who has been conscripted for service. In addition to the fact that all of those who are classed as rich are called upon in equal ratio to those who are not so classed to perform war service, the wealthy of the country are called upon and promptly and cheerfully respond to the call to meet the unheard of expense entailed by war operation. The wealthy man's son is doing duty in the ranks side by side with the son of the poor man. The wealthy man is being called upon to pay 50 per cent of his own earnings and the earnings of his capital, and will gradually be required to pay a continually increasing proportion for the maintenance of the fighting forces at the front. The laboring man's part is the best service which he can render. No less performance will meet his responsibility nor preserve his dignity.

THE CONSCRIPTION OF LABOR AND CAPITAL

It is hoped that the thin dividing lines between governmental supervision and government control may be sufficiently tenacious to enable the Government, which has conscripted the entire transportation system of the country, to also prevent the tieing up of the Government's business through labor strikes, which under government supervision have been tolerated and sometimes assisted. A recent strike of shop men, machinists and others in the railroad shops at Alexandria, Va., has, in the words of Secretary McAdoo

> "created a very painful impression on the public mind. I cannot believe that these men knew what they were doing. They are all employes now of the United States Government. They are not the employes of any railroad corporation, therefore this was a strike against the Government of the United States.
>
> "It is the first time in the history of our Government that any of its employes have attempted to strike against their Government. Such action is incredible. For the good of our beloved country, for the honor of railroad men in the service everywhere, I hope there will be no repetition of what every one must contend as unpatriotic in the highest degree."

Mr. McAdoo proceeds to point out that there are probably inequalities in the recommendation of the Wage Commission, which should be impartially considered and dealt with, and points out that by his general order No. 27, dated May 25, he had provided "a board of railroad wages and working conditions, composed of three representative labor men, and three representative railroad men, whose duty it is to hear and pass upon all petitions and complaints."

Mining Congress Journal fully approves the principle laid down by Mr. McAdoo's statement, and believes that this principle should be applied still further.

The Sherman Law prohibits combinations in restraint of trade, and the laws against conspiracy are still upon the statute books.

The right of any body of men to act in concert in such a way as to interfere with the orderly conduct of any business resulting in damage to the owners, or to the public, should not be permitted, except after the merits of the dispute have been passed upon by any Arbitration Board, with powers similar to those outlined in Mr. McAdoo's order. Mining Congress Journal believes this to be true in ordinary times, but surely no question should be raised in these times when the success of our boys in the trenches depends upon the efficient service of the working men of America. Wage disputes should be settled by arbitration and any one undertaking to settle by any other method than arbitration in violation of the laws against conspiracy and combination should be made to feel that his act is not only disloyal but treasonable.

GLORIOUS PROGRESS IN WAR WORK

It is most gratifying to note the progress which is being made in all war preparations. Our national lesson is being learned, at a cost the greater part of which may be paid with money. For many months we fooled with our war program. Our prejudice against the captains of the industry led to the refusal of the assistance of these men. We put in charge of greater business operations than the world had ever before known, men whose experience did not justify the belief that the enormous problems would be handled efficiently.

This is not a criticism of the President nor of the Administration, but an acknowledgment of a weakness of democracy and a criticism of a very common public sentiment that the owners of great wealth are a menace to the common good.

The first great dilemma which the Administration was called upon to meet was a coal shortage. The public mind had for years been educated to believe that the coal operators of the country had taken undue advantage of their ownership of the nation's coal reserve to unjustly mulct the public for its supply of fuel. Had the President appointed the most successful coal operator of the country as fuel administrator, a public protest would have gone forth against such appointment. Nine-tenths of the people of this country hailed with acclaim the appointment of Dr. Garfield, who made no pretense of any special knowledge of coal operations. The President, as every president should, did what he believed to be and in fact what was the desire of the American people. Whatever bad results have followed is the price which we should gladly pay for the maintenance of that fundamental principle, that public office is a public trust and that our public officials are representatives of and should carry out the wish of a majority of our citizens.

Public sentiment upon this question has been gradually educated. Dr. Garfield, in accordance with a change in public sentiment, has added competent coal advisers to his staff and coordinated his work with the War Industries Board and the Railway Administration. While the situation is still serious, there has been a very marked improvement in the administration of fuel problems.

This result has come out of a recognition of the fact that coal operators are just as honest and just as patriotic as other men, and that no business can be handled efficiently except by those who have been trained to its requirements, and who approach their work with a knowledge of problems to be met.

It was this public sentiment which was responsible for many unwise appointments. One exception to this was the appointment of Mr. Herbert C. Hoover, whose success in similar work had gained for him approval of the public. His executive ability, supported by a sympathetic public, has made possible the great success of the Food Administration. Public sentiment is rapidly changing in its estimate of what it has unfairly termed "predatory wealth." Patriotism is rapidly taking the place of prejudice. Public approval of the appointment of such captains of industries as Daniel C. Jackling, John D. Ryan, Henry P. Davidson, Charles M. Schwab, and many other distinguished men who are giving of their service for the public good. The order which these men are quickly bringing from the chaos which marked the efforts of a great mass of patriotic workers without competent leadership is demonstrating, as nothing else could have done, that success comes as the result of efficiency and that, without efficiency, no great work can be carried on and be made successful. It is believed that nearly a quarter of a million men left our shores for France during the month of May. It is known that our shipbuilding program is turning out ships at a rate of astonishing rapidity. A better understanding between men, a more comprehensive appreciation of the fact that every successful army must have its officers and its soldiers; that each must perform the duty which is assigned to him, and whether that duty be large or small, dignified or menial, each must perform his part. In the great industrial life of a nation, there must be leaders; there must be workers. Each must have respect and sympathy for the part of the other, and if the present experience of the country in the work shall bring about a better understanding between men, it will have accomplished much for our future prosperity.

WASTING TRANSPORTATION

The Denver Manufacturers' Association makes bitter protest that, after having raised $150,000 for the purchase of a camp site for the United States Government, fifteen carloads of sash and door supplies are en route to that point from Clinton, Ia., which could have been supplied by the home manufacturers and upon which contract they were not allowed an opportunity to bid. The protest includes the statement that in this order another order for $30,000 worth of kitchen supplies, which has been placed in St. Louis, and other contracts, might have been given to Denver firms, and the Association has been advised by a $500 a month lobbying agency in Washington that by its employment Denver might be able to secure a share of this business. While the unfairness of this situation is apparent, the transaction is particularly vicious in view of the great shortage of transportation facilities in the country at this time.

Colorado is able to produce many million tons of coal more than it has ever been able to market. If transportation facilities are available for the hauling of goods from Missouri and Iowa, manufactured from Colorado wood and Colorado metal, it should be able to supply the transportation facilities necessary to bring Colorado coal toward the central field and to that extent relieve the danger of a coal famine during the coming winter. Assuming that these contracts were let without undue influence or fraud, it would seem to be very bad business judgment in the present condition of the country's business to be hauling lumber materials from the plains of Iowa to the timber covered mountains of Colorado.

ALL VALUE BASED ON CHANGE OF FORM OR PLACE

Congressman Frank W. Mondell, at a recent hearing of the special committee appointed to consider the administration water power bill, made the statement that, in the transfer of property by the government to individuals either under patent or by lease, "the Government does not part with anything.'

Mr. Mondell's thought was that a natural resource being valueless until applied to some beneficial use, could not be acted upon by the Government until individual effort had created a value in the property theoretically transferred; that until this property is made valuable the control of the Government could not attach to it. This theory will be new to many people and, so far as the writer knows, is entirely original with Mr. Mondell.

A western writer, Mr. Chauncey Thomas of Denver, Colo., has called attention to the fact that value can be given to a thing in but one of two ways, "Either by changing a thing's shape or changing its place." This principle, if true, gives additional force to the contention of MINING CONGRESS JOURNAL that the Federal Government should at the earliest time possible with proper regard to the rights of all of its citizens, dispose of every foot of property which is not required for governmental purposes. This belief is founded upon the principle that a democratic form of government should exercise its power uniformly and that to collect taxes for one piece of property through a royalty, and from another through a tax, cannot but produce a difference which is not to be the best interest of a government.

A NEW REVENUE BILL

After much of controversy between the leaders of Congress and the Executive Department, it has been decided that a new revenue law shall be enacted during the present session of Congress. MINING CONGRESS JOURNAL believes this decision to be wise in that it will give sufficient time to frame a law which will produce the required income in a more equitable manner than the present law. In framing this law it is hoped that Congress will give proper consideration to the wasting character and the special hazards of the mining industry. The 1916 income tax law, which furnishes the basis of estimating the War Excess Profits Tax, did recognize the vital difference between mining and other industries. It assumed that the balance upon the books at the end of the year represented the profits of the year only after having made proper deduction for the depletion of its ore reserves, as well as for depreciation of property involved in the business. It did recognize the fact that a mine with a life of ten years under continuous operation, has each year sold one-tenth of its property, and that the consideration named as the selling price is not in any sense a profit.

It is hoped that any new bill that is enacted will make proper provision for the wasting character of the mining industry in order that the original investment may not be so jeopardized as to prevent future investment in mining enterprises. The nation has realized as never before during recent months, that the mining industry is the essential industry and that without its continuous production no progress can be made. The coal scarcity during the past year brought this lesson home more acutely than ever before. The copper industry is straining every nerve to meet present requirements; the steel industry is being called upon for larger service; the oil industry must be stimulated to the highest degrees, and any system of taxation which does not leave intact the original investment must necessarily prevent the development of new industries of that kind. Our mineral resources are sufficient under good management to supply the country's needs. But all mines are comparatively short lived, and to keep up the production requires the continual development of new sources of supplies. Manganese and chrome, pyrites and potash, all are very necessary and require new investments in order to provide the supply which has been cut off by a lack of shipping. Development of such properties must have assurance that the original capital will not be taken as an excess profits tax, if investments in these lines are expected. The hazards of the mining business must also be taken into careful consideration. Mining Congress Journal fully appreciates the difficulties involved in the framing of a revenue law which will produce the enormous sum which is necessary and at the same time rest equitably upon all branches of industry. It asks for the mining industry simply that its wasting character and the risk involved in the business shall be given proper consideration.

THE BUTTE AND SUPERIOR FLOTATION CASE

The United States Court of Appeals has reversed the decision of the Montana Federal District Court, in which an injunction was granted against the Butte & Superior Mining Company, restraining the further use of the agitation froth method of flotation. The use of oil in excess of five-tenths of one per cent is not an infringement of the patent rights of the plaintiffs, according to the decision of the court, which used the following language in discussing its final conclusion:

> Inasmuch as it appears without dispute that the appellant company has never used in its process any oil in quantity as small as one-half of one per cent, it results from the views above expressed that the judgment must be reversed and the case remanded with directions to the court below to dismiss the bill at the complainant's cost.

This decision, if affirmed by the United States Supreme Court to which it is likely to be appealed, would be of vast benefit to the mining industry of the country. The over-reaching methods of the Mineral Separations Company has been referred to in previous issues of the Mining Congress Journal, and it rejoices that the grasping tendencies of the Mineral Separations Company has resulted in taking from it a large part of what it might have received as a reward for its efforts in the development of the flotation process had it not been so unreasonable in its demands.

FOREIGN TRADE AFTER THE WAR

No matter what difference of opinion may exist concerning the statement of Chairman Frank W. Taussig, of the United States Tariff Commission, that this country "May fairly be said to be in a helpless condition," there will be a general agreement with his statement that

> In the trade rivalry which we may expect

after the war, the United States must rely mainly upon the effectiveness of its industry for the promotion of its export trade. We must make goods well, and we must make them cheap. We must secure a fair field in which to enable our effectiveness to secure its due return.

Mining Congress Journal has taken issue with the general statement that "Trade follows the flag" and had insisted that instead of following the flag, trade follows efficiency. To use an old trade expression, "Goods well purchased are already half sold." Efficiency of production is the first essential.

A SERVICE TO MINING

The income tax law of 1916 was the first legislative recognition of the wasting character of the mining industry as compared with other industries.

The 1913 Income Tax law provided for a deduction

> in the case of mines, 5 per centum of the gross value at the mine of the output for the year for which the computation is made, but no deduction shall be made for any amount of expense of restoring property or making good the exhaustion thereof for which an allowance is or has been made.

At the time of the enactment of this law the American Mining Congress made a vigorous but unavailing protest against the injustice of this provision, and during the following three years the writer made this his favorite illustration of the contention that Congress had never been fair to the mining industry.

That the limitation of the deductions permitted should be limited to 5 per cent in the mining industry, while other lines of business were permitted to deduct the whole depreciation, was so manifestly unfair that it proved a convincing argument. Three years of continual urging of this inequity laid the basis for the provision in the law of 1916 permitting mines to deduct the fair value of the ore in the ground. This provision is as follows:

> (b) In the case of mines a reasonable allowance for depletion thereof not to exceed the market value in the mine of the product thereof which has been mined and sold during the year for which the return and computation are made.

This provision in the income tax law of 1916 was made the basis of computation under the war excess profits tax law and has prevented injustice to the mining companies of the United States measured by millions of dollars. Without this provision, many, very many, of the mines of the country would have been required to pay much more than the total earnings of the year 1917 under a law nominally calling for from 20 to 60 per cent of the profits in excess of the profits of the pre-war period, but it will not be difficult for each taxpayer to discover the advantage which has accrued in his own case.

It is certain that the total amount is sufficient to furnish ample evidence of the value to the mining industry of a national organization devoted, in a broad, impersonal way, to the protection of its interests.

THE BURDENS OF WAR

In a timely and instructive article upon the revenue needs of the country, Senator McCumber of the Senate Finance Committee points out that the expense of the war will approximate $30,000,000,000 annually and that the amount which the country can pay in taxes if our earning capacity does not depreciate is $7,000,000,000—that the maintenance of an army of 5,000,000 men in France for a period of four years will cost $120,000,000,000—an amount equalling in value all of the real property in the United States. $23,000,000,000 of this annual cost, a total of $92,000,000,000, must be a national debt at the close of the war. Senator McCumber justifies this debt on the grounds:

> First—This generation must shed all the blood, endure all the agonies, bear all the burdens of the most desperate war of the ages.
>
> Second—The benefits to be derived from this sacrifice—security, liberty, freedom from the load of mighty armaments—will accrue to future generations.
>
> Third—If this war is fought to a successful and honorable victory, no such conflict will ever again blacken the earth.
>
> Fourth—This war debt will be paid by a population whose numbers will be from two to three times the present population.

Fifth—Due to the enormous increase in gold production and other increases in circulating medium, this debt will be paid in dollars ranging from one-half to one-third the value of the present dollar.

Senator McCumber's reference to increasing gold production reflects a common but erroneous public notion. The fact is that gold production is decreasing in a startling ratio as compared with the need of gold as a basis for currency.

Not only in this country, but throughout the world, the burden upon gold production is growing greater. The increasing cost of labor, machinery and supplies with no increase in the price of the product, must naturally close down all the gold mines except those which operate at a very high profit. The greater of the world's gold production comes from extremely low grade ores, from ores carrying less than $3 per ton in gold values. These mines cannot continue operation under present conditions. On another page will appear copies of letters from the California Metal Producers' Association to the authorities in Washington concerning the production of gold which will be of special interest.

INSTALLMENT PAYMENTS OF WAR EXCESS PROFITS TAX

The importance of the contention of the Mining Congress Journal that the Treasury Department should permit the payment of the War Excess Profits Tax in installments, instead of asking for a lump sum on or before June 15, seems to have been recognized and admitted by the Treasury Department in its announcement that, in order to lessen any monetary disturbance as a result of these very heavy payments, the Department has made arrangements to permit the money to remain in such banks as qualify as depositaries until such time as the cash is needed by the Treasurer, such deposits to bear 2 per cent interest.

This concession meets one of the very important objections to the lump sum payment of this enormous sum which will amount to approximately $4,000,000,000, but it fails to extend that accommodation to the taxpayer upon which he would have been perfectly willing to pay a reasonable rate of interest. The request of the taxpayers in this regard, and this is particularly true of the mining operators of the country, based itself chiefly upon the fact that much of the money of which a very large percentage was called for by the Government was received and spent in other development work or distributed in dividends before the law calling for this tax was passed, making it necessary that the tax should be paid out of the present earnings rather than from the earnings upon which the tax was levied.

In many instances these taxpayers will be forced to borrow the money. The proposed arrangement will enable the banks to extend the credits required, although the taxpayer will be called on to pay a very much higher rate of interest.

PATRIOTISM AND HOLIDAYS

It is announced from Portland, Ore., that the Metal Trades Council has waived the usual Saturday half holiday during June, July and August in order to speed up ship construction. The workers have agreed, if necessary, to take straight pay instead of time and a half for holiday work. The result of this will be to add a full week service to the summer period. While it is true that additional wages will be received for this time, which is entirely proper, this is a practical patriotic effort which might well be emulated elsewhere in those lines engaged in the production of war materials. An increase of 8 per cent in the production of this country may mean the difference between having all the implements which are necessary as applied to war operations and being short of powder at the critical moment. It may mean the thirteenth round of ammunition with which success might be obtained by our armies and without which it might fail. The productive force of this country must be stimulated to its highest point and it is the patriotic duty of every individual, whether he works for wages or otherwise, to render the very best service of which he is capable, until the needs in his line have been fully supplied.

FEDERAL INVESTIGATION OF MINING METHODS

A valuable suggestion concerning the Government's investigation of mining affairs comes from Mr. Charles F. Willis, of Arizona, that the Bureau of Mines might well devote one or two of its stations to special study of mining methods. Much of the work thus far done by the bureau has been metallurgical in its nature. The difficulty in carrying out this suggestion seems to consist largely in the fact that many of the questions of mining methods are largely local and because it is presumed that any operations sufficiently large to justify governmental investigation, are in the hands of organizations able to work out their own problems with satisfaction. Many of these problems of a general nature have already been considered by the Bureau of Mines and a number of bulletins of general character have been issued. It is probably true, however, that more attention might well be given to this branch of the service.

GOLD MINING AND EXCESS PROFITS

Strictly speaking, an Excess Profits Tax Law, designed to take from the taxpayer a part of the amount of money earned by him at the present time in excess of what was earned during the pre-war period, cannot possibly apply to the business of gold mining. The fact is that gold mining is the one business upon which profits are less during times of high prices. The enormous falling off of gold production throughout the world as well as in the United States is a complete demonstration of this statement. A gold mine which in normal times might operate at a profit of 25 per cent would be operating at an approximate loss of 25 per cent in case its operating expenses should be increased 50 per cent. In other lines of business when the expenses increase, the price of the product increases in some similar proportion, but the value of the product of the gold mine is fixed and, to the extent that operating costs increase the possibility of operating a gold mine at a profit, decreases. This condition may go on until a revolutionary condition shall put gold at a premium, but until such time the gold mining business has no excess war profits and should be exempt from the provisions of any law designed to reach war excess profits.

NATIONAL WAR LABOR BOARD ANNOUNCES FORM OF PROCEDURE

The National War Labor Board authorizes the following:

After thorough consideration of the problems to be met in the operation of the National War Labor Board's machinery for the adjudication of industrial controversies, the board has finally agreed upon a plan of procedure and method to be followed in all cases. This plan provides for the appointment of subcommittees composed of two members to act for the board in every local controversy, and the appointment of permanent local committees in cities and districts to act in cases therein arising, and also comprehends a method of investigating industrial disputes by trained field agents sent into territories by the board from Washington. It lays down the method to be followed by persons desiring to bring a condition to the attention of the board.

WHOLE BOARD TO SIT

In compliance with the direction of the President's proclamation of April 8, the board will hear appeals in the following cases:

1. Where the principles established by him in such proclamation have been violated.

2. Where an award made by a board has not been put into effect, or where the employees have refused to accept or abide by such award.

3. To determine questions of jurisdiction as between government boards.

Following is the full text of the decision:

HOW GRIEVANCES ARE STATED

1. Any person desiring to bring before the National War Labor Board an issue between employer and employes, of which the board has cognizance, shall deliver to the secretary of the board a written statement, signed by him, with his proper post-office address at his home and in Washington. The statement shall contain a brief description of the grievance and the names of the persons or corporations

against whom he complains, with their postoffice address.

2. Where an employer and employes both desire to submit a controversy to the board, they shall sign a short joint statement of the issue between them, with their respective postoffice addresses, and request the action of the board. They shall deliver this signed statement to the secretary of the board.

3. Controversies in which the Secretary of Labor invokes the action of the board, together with the documents transmitted by him, shall be delivered to the secretary of the board.

4. Such complaints, submissions, and references by the Secretary of Labor shall be received by the secretary of the board and filed in his office, and indorsed with the date of filing.

5. The secretary of the board shall keep one docket for the filing of all complaints, submissions and references, and shall number them on the docket in the order in which they are received and filed. Thereafter the cases shall be referred to by such number.

6. Where the complaint or submission filed shall show clearly that another board than this has primary jurisdiction therein, the secretary is authorized to direct the proper reference and to advise the party or parties initiating the proceeding of such reference. At the next session of the board the secretary shall advise the board of his disposition thereof.

7. The secretary of the board shall digest all cases presented and bring them to the prompt attention of the board for its action.

ORGANIZATION OF BOARD

1. Two members of the board, one from the employers' side and one from the employes' side, shall be appointed to act for the board in respect to every local controversy, the members to be named by the joint chairmen at the instance of the respective groups of the board. These members shall be called a section of the board, and shall hear and adjust cases assigned to them. If they cannot effect any adjustment, they shall summarize and analyze the facts and present the same to the board with their recommendations.

2. The Secretary shall select trained and experienced men of neutral attitude to act as examiners, to accompany the sections, and to assist them in the discharge of their duty by investigation, digest of evidence, and in other proper ways.

3. The National Board may appoint permanent local committees in any city or district to act in cases therein arising. In the selection of such local committees, recommendations will be received by the National Board from associations of employers and from the central labor body of the city or district and other properly interested groups. Sections of the board are authorized to appoint temporary local committees where permanent local committees have not been appointed by the board.

4. Two special field representatives may be selected by the Secretary from names submitted by the joint chairmen to make a joint investigation of any complaint for the purpose of ascertaining the complete facts without the intervention of sections.

ARBITRATION PLANS

When the board, after due effort of its own, through sections, local committees, or otherwise, finds it impossible to settle a controversy, the board shall then sit as a board of arbitration, decide the controversy, and make an award, if it can reach an unanimous conclusion. If it cannot do this, then it shall select an umpire, as provided, who shall sit with the board, review the issues, and render his award.

ALASKA MAY HAVE FUEL ADMINISTRATOR OF ITS OWN

On the request of the Territorial Council of Defense of Alaska, with headquarters at Juneau, the United States Fuel Administration has under consideration the appointment of a fuel administrator for a territory that perhaps contains as much coal as the fields of Pennsylvania.

The administration of the Alaska coal fields has been conducted hitherto by the Fuel Administrator for the State of Washington.

In spite of its immense undeveloped coal fields, Alaska has always been an importer of coal, its supply coming from Washington and from British Columbia, whence it has been shipped to Nome. Alaska has been consuming about 80,000 tons a year.

The government railway that is to reach from Anchorage to Fairbanks was completed last year far enough to tap the Matanuska coal fields, and with the completion of that section of the road from Anchorage to Seward it will be bringing out Alaskan coal this summer.

The difficulties of transportation over Alaska's 562,000 square miles, the problems of wharfage and loading and unloading where both boat and rail have to be used, together with the opening up of new mines, will furnish many unique problems for the fuel administrator when he is appointed.

WAR MINERALS BILL HEARINGS CONCLUDED

Prominent Men Appear Before Senate Committee and Present Views on Pending Legislation

Fearing undue interference with the entire mineral industry, numerous witnesses appeared before the Senate Committee on Mines and Mining in opposition to the War Minerals Bill, which was passed by the House last month. The hearings lasted throughout the month of May and a large number of witnesses was heard.

What is regarded as most comprehensive argument against the bill was presented by Cornelius F. Kelley, vice-president of the Anaconda Copper Mining Co. George Otis Smith, the director of the United States Geological Survey, is conceded to have made the most effective argument for the measure. Each witness contributed information of importance. In fact the record of this hearing will be a valuable addition to mining literature. Most of the witnesses, however, dealt primarily with specific phases of the industry and in the limited space that can be devoted to such an important matter, it is believed that the best idea of the legislation can be obtained from extracts from Mr. Kelley's and Mr. Smith's testimonies. Extracts also are given from the testimony of James F. Callbreath, secretary to the American Mining Congress, so that members may know the attitude taken by its representative.

"I believe," said Mr. Kelley, "it is sound business, it is good economics, it is safe governmental policy, to permit, as far as possible, the industries of the United States, by the natural inherent development and enterprise of the American people to meet the situation, and I think you will do it a great deal more effectively and a great deal more satisfactorily and a great deal more rapidly than if you attempt to violate every natural law that enters into the production, growth and development of industry.

"So far as any personal interests I may have are concerned, they would be greatly augmented, and the interests of the corporations that I represent would be augmented by the passage of the bill. I am opposing it absolutely upon the basis that I do not think it is sound business; I do not think it is sound economics.

"As the bill stands, there is not a single copper smelter or lead smelter in the United States that would not be guilty of violating this law every time it operated. For instance, in the plant at Anaconda there are thousands of tons of sulphur being emitted daily as waste gases. There are tons of arsenic emitted, and large quantities of antimony and other substances. Do you mean to tell me that it is going to stimulate production of metals to make it a felony for you to engage in a business where, irrespective of economic or market conditions, you are obliged to operate at what may be laid down in a regulation as 100 per cent efficiency? Would you, as business men, consider going into a business that was filled with as many pitfalls for the unwary as the present act?

"I say, gentlemen, without the slightest equivocation, as a matter of business judgment, that I do not believe you could get men to invest a dollar and take the hazard of committing a violation of the obligations of the bill as it is drafted.

"The minimum price is going to be the price some day at which the minerals should sell, regulated by supply and demand. The maximum price is purely a theoretical proposition for the reason that it cannot be a scientific price. When you fix a maximum price, unless you fix every factor of cost that goes into the production, and the other elements of expense in order to maintain a fixed margin of profit, you disturb the mathematical equation. You have supply and you have demand and they are related, one to the other, and they fix by the third factor, the price, and this third factor is variable. The moment you take one factor and make it constant, leaving the other two factors variable, you have got that situation that can only maintain as long as the maximum price is so far in advance of the cost of production that it does not crowd to the point of diminishing a reasonable profit. That means that in nine cases out of ten the maximum price is already high and is never reached. We have had maximum prices for lead and zinc established by the War Industries Board. They are paper prices, and they do not apply to the business.

"With copper it is not a maximum price; it is a fixed price at 23½ cents. That fixed price can be maintained at 23½ cents as long as there is a deficit in production.

"The capacity for making sulphuric acid is unlimited, practically, in this country. There is practically an unlimited amount of gas that is now being wasted and going out in the air.

"There is no difficulty about the operation of an acid plant; there is no difficulty about manufacturing and laying the acid down at the plant. The utilization of the acid, however, requires transportation for long distances. We had the matter up in connection with the Bureau of Mines and the War Industries Board and the Bureau of Ordnance. For some reason or other the proposition was turned down, I am advised, and I think it was because of the transportation factor. It was purely a tank car proposition, as I understood it. I suggest this alternative to the situation. You need the munitions factories in the East. The proposition of building munition factories in the West, on account of the labor supply and one thing and another, was not attractive. If we could bring about a condition, by regulation of the industry, or otherwise, whereby the sulphuric acid that is now used in the fertilizer business in the East could be released for munition purposes in the East—and you know we have within forty miles of this place a great phosphate deposit, and within 200 miles the greatest phosphate deposit in the United States—and we could establish that fertilizer business out there, the whole situation would be solved. The fertilizer would require the legislation that Senator Walsh referred to for opening up the phosphate lands in the west. I must confess that the tank car situation, while it was a very grave one, did not appeal to me as an insuperable obstacle. However, I do not want to go into it that far, because of certain confidental communications. The demand for sulphuric is, and is going to be, a very serious one. A thousand tons could be handled in 20 tank cars a day. I believe the tank cars can be gotten. If not, they can be built. They can be run from the West through in train loads, and I do not think it would take over six or eight hundred cars to handle that whole western acid situation. I think that could be done.

"I want to develop the arsenic situation, because it was commented upon by Mr. Hoover, for whom I have a profound regard and the very sincerest respect. Prior to the war we were producing a comparatively large quantity of arsenic. We had been producing it for sixteen years or thereabouts. After several years of the closest cooperation with the Bureau of Mines we entered upon a plan of spending approximately a million dollars and a quarter in the construction of a new stack and new flues, and putting in Cottrell treaters. That work is proceeding just as fast as it can be done. Now, we will have a supply of arsenic sufficient, according to the figures, to take care of the United States, and if we do not sell it, we will have to dig holes in the ground and bury it and cover it up, and we intend to do it.

"A complaint was made because arsenic increased in price from 15 to 20 cents a pound. It was cited as a profound case of profiteering before a House committee. The fact of the matter is that for sixteen years we never made a dollar on arsenic, and we never sold a pound that we did not sell it at a loss, until a temporary increase in price came in the last year or two. I do not know how much was sold at 20 cents. We did not get any but a very small amount. The price cuts no figure, because this arsenic has to be taken out of the fumes. You have to dig a hole and cover it up if you cannot sell it. So it is perfectly silly to talk about spending money to stimulate the production of arsenic. We will give it away.

"The increase in manganese has been enormous, and it is going to increase to the limit of potential output.

"Mr. Hewett, who has such a splendid knowledge of this, says that he does not think that the United States will ever become wholly independent of imports, because of the very large demand. I do not know. I do know that his figures are conservative, because I think Montana will, in 1918, ship over 200,000 tons of manganese ore of a grade from 35 to 40 per cent. I know that the Anaconda Copper Mining Company is shipping now about 250 tons daily, and we expect by August to raise that production up to between 4 and 5 hundred tons, and that is a very large proportion of the entire amount of production up to last year.

"I cannot conceive of anything in this bill that will help the situation greatly. You might get a few scattered deposits somewhere, but if there is any manganese ore that is lying around loose, the Congress does not need to appropriate ten million to develop it because the money can be gotten while we are sitting around the table talking about it. If somebody knows where the deposits are, I can assure them of that proposition.

"There is no priority board that can bring freight over lines that are congested by snow and the highest zero temperatures. It cannot be done, and as far as embargoes and priorities are concerned, they are necessary to some extent, but to the most limited extent possible, because the moment you give a priority for one thing you sidetrack another, and there is not any doubt that the traffic situation last winter was intensely aggravated by priorities that were issued in the beginning by Fuel and Food Administrations, in my judgment."

DR. SMITH'S TESTIMONY

Dr. Smith, in supporting the bill, said in part:

"The central thought, as I read this bill, is that there is a necessity of furnishing certain absolutely essential supplies of raw materials. In connection with those supplies there is this need of stimulation of domestic production. Wherever that can be increased the domestic output should be stimulated.

"Now, price fixing may or may not be a direct method of stimulating production. With many of the mineral substances under discussion, I believe price fixing will be found to be the best method of stimulating the domestic production, but in other cases, where stimulation by any and all means cannot bring domestic production up to the mark required by domestic consumption, then there needs to be some control of distribution. Here again, price fixing may be one means to secure this end of the proper distribution of what supplies are available. Then I would say that encouraging production is the primary purpose of the bill, by control, and in that connection the control of supply is sometimes equally important with the stimulation idea, and price fixing may or may not be a part of the control or stimulation of output.

"I think if I may make a personal explanation of the reasons for my interest in this legislation, I would say that, in making this statement, I am in a way answering some of the arguments that have been put forth by the opposition to the bill.

"First, I have had no part in the preparation of the bill or in any of the amendments that have been suggested, so I think it must be admitted that my advocacy of the legislation is not tinged with any pride of authorship. Neither do I have any expectation that the enactment of this legislation will result in any enlargement of function for the bureau that I represent or any enhancement of its prestige or any great increase in its activities. I make this statement to show that I am not actuated by any of the bureaucratic reasons for supporting this bill, as has been indirectly intimated by some of the opponents of the legislation, who say that this is simply another measure that is put up by those who wish larger activities on the part of the federal bureaus. My support of the legislation is based upon a very strong conviction of the need of larger power being given to the government at the present time in handling this important matter of the supply of raw material, and that conviction is based upon my extended experience during the past months and even the past years.

"Some of us in the federal service have realized this need and have felt large responsibility, but we have had rather limited authority in the matter. There has been some duplication of effort and there has been much uncertainty of obtaining the results that we seek. We have tried to render first aid to these infant industries, answering inquiries from the producers all over the country, encouraging them in the matter of increasing their output, helping them to get embargoes lifted, assisting them in the matter of securing car supply and, in some cases, securing for them a supply of coal or a supply of fuel oil, and being, in a way, the next friend to the producer here in Washington, that producer, in some cases, being on the Pacific coast, and needing someone to represent him in Washington to secure this well-deserved assistance.

"But in going at this, both the members of the Bureau of Mines and the members of the Geological Survey have had to do this work with no well-established authority. We have not been in a position to speak for the industry as a mineral administrator under this legislation could speak, but in spite of that, we have done all that we could see before us to do. The important matter of getting the producer into close touch with the consumer and the consumer into close touch with the producer has been a task on which we have been working ever since 1914. We have accomplished this through correspondence many times and in many cases. We have had a somewhat well-established practice of from time to time sending out lists of new operators to the consumers and also sending lists of consumers of the particular ore to the operators. With this experience, then, I have felt the need on the part of the government to meet these obvious needs of the industry as they arise, and to have larger power to handle each situation as it arises. Of course, when I say that, I want to emphasize the fact that each situation is different from the situation as we knew it last week, as it existed for some other mineral product.

"From the standpoint of the Geological Survey, the large benefit that will come to us from the enactment of this legislation is simply that there will be, we think, a larger use made of the results of the survey's investigations in the past, and those that are in progress, and that more administrative action will be based on the facts that are already available.

Mr. White, of the Bureau of Mines, and one or two of the representatives representing the steel industry, touched upon a matter which I think is of very large importance, namely, that price fixing includes the time element as well as the price element. Stimulation of domestic industry involves the creation of confidence in the market. That means both as to the quantity of product that can be sold as well as the price at which it can be sold. In my opinion, the high price put on any mineral products for a few months, would amount to only a feverish impulse. It would not be a lasting benefit to the industry as compared with a much lower price that would be assured for one or two or three years. The effect of a price established for a considerable period of time would be, of course, to stabilize the industry and bring out the maximum practicable output. So I think the legislation should provide for the fixing of a minimum price and for a definite period, with this idea of stimulating production. I think it is just as important, in other words, for the mine operator to know how much and how long he can sell his output as to know at what price he can sell it.

"There has been some discussion regarding the difference between the minimum price and the maximum price. Of course, it is impossible to generalize. It is not practicable to generalize too much, but I would offer the suggestion that the minimum price is most effective in the case of raw materials, but in the case of some manufactured products, or some derivatives, the maximum price may be found advisable.

"There has been expressed the fear of the danger of a runaway market, and the need of protecting the consumer of these raw materials by fixing a maximum price. I think that such control of distribution as may be provided in this legislation would obviate the danger of a runaway market. Of course the minimum price is directed toward helping the primary producer. The man that we are interested in is the operator of the new mine or the operator of an old mine who is enlarging his plant. In other cases the maximum price would be directed to helping the ultimate consumer. Looking at the two in that way, I do not think that the two kinds of price fixing are necessarily antagonistic. The public interest is in the line of securing maximum production by limiting the downward movement of price, but the public interest is also served by protecting, in some cases, the consumer, by the method of limiting the upward price of the delivered product. As has been suggested by some of the members of the committee, we speak sometimes in terms of maximum price fixing when we are concerned with the consumer, but I think that we are agreed that when we are thinking of the producer, the minimum price is the means to secure the end.

"The first consideration, of course, of this matter of price fixing is to answer the question, 'What do we want, and are we willing to pay the price to secure that?' I think that the minimum price fixing will be found to promote the end that we are most interested in, which is a larger output, provided that the minimum price is high. Of course, on the other hand, the maximum price is restrictive. It is restrictive in purpose and it is restrictive in effect if it is low enough, but as I look at it, the two kinds of prices are remedies for different ailments."

MR. CALLBREATH'S REMARKS

Secretary Calbreath, whose views also have been set forth frequently in editorials in this publication, made an extended statement to the Senate Committee. A brief extract from his remarks follows:

"The fixing of a minimum price is for the purpose of protecting the producer. The fixing of a maximum price is for the purpose of protecting the user. The law of supply and demand has operated so as to protect the consumer, except for very short periods of time. You have had statements made concerning the zinc situation. When the price of zinc went to a high point, the production was so stimulated that in a very short time the supply was in excess of the demand to a point so low that the industry was almost stagnant. Temporarily the disposition was to fix a maximum price, to keep down the price of zinc. In fact, that was done by the government as to its own purchases. But immediately the high prices so stimulated production as to regulate the situation and the price dropped to a point lower than should be. That condition will always prevail in an industry which is already established, but it will not operate to develop the machinery of production, which is expensive, unless that machinery has a guaranty that it may operate long enough to reimburse itself. Therefore, I think that the bill should guarantee that the man who invests his money in these enterprises, which before the war could not exist in the face of foreign competition, shall be permitted to amortize his increased expenses during the time of the high prices. The fixing of a minimum price for a definite period of time would probably accomplish that, but I believe it could be accomplished fully as well by specific contracts with certain individuals under which they know exactly what they must do to meet the known demands. If the product produced by virtue of that stimulation should be slightly excessive, the government is in position under the bill to protect itself and dispose of its surplus products, but if the offer was unlimited for a three-year period with a fixed minimum price by which the government agreed to take all of the ores which could be produced in this country at a price which would justify the increased cost of developments, it might find itself in possession of an enormous supply of these minerals which would be an enormous burden upon the country, and that would not be the worst result. The worst result would be that the government, having these materials upon its hands, would be obliged to dispose of them, and these plants, which had been created for the production of that excess supply, would be forced into competition with the government, and would be obliged to close their doors until the government supply was disposed of. That would seem to be an uneconomic way of stimulating this production. Therefore, my belief that the government should fix the minimum price on just so much of this product as it believes to be essential.

"I feel that the government itself can well undertake to stimulate the production of our home resources, having in mind the establishment of permanent industries, and that the steel users of the world can well pay, if it is necessary to do it, a slightly increased price, in order that all of the resources of our own country may be utilized in steel manufacture.

"Some discussion has taken place as to the amount of appropriation mentioned in the bill of ten million dollars. I would like to say, Mr. Chairman, that it seems to me that appropriation is entirely inadequate.

As an illustration it is stated that the amount of manganese ores which are required to be important to maintain the steel industry, is approximately 600,000 tons annually. The market price a few days ago was $56 per ton. Upon the theory that $50 per ton is a proper price, 600,000 tons of ore, or one year's supply, would cost $30,000,000.

"It is stated that in ordinary times the steel industry believes that a year's supply is as little as safety requirements would permit. Now, if it is wisdom for the United States Steel Corporation to provide a year's supply of its materials in ordinary times, it certainly would be wisdom on the part of the government if it undertook to supply it at all, to count on creating a year's supply of that material. That would require $30,000,000. That is but one of the minerals which are involved. It has been estimated that a year's supply of the minerals which are mentioned in this bill, of which there is a shortage, the supply which has been cut off by lack of importations, would amount to two millions of dollars. Fifty millions of dollars would only be adequate to carry out the purposes of this bill by virtue of it being a revolving fund which could be turned over. I do not believe that $10,000,000 will answer the purpose, and I feel that your committee would serve that purpose of this legislation by increasing that amount to at least fifty million dollars.

"In connection with the theory of bounties, I have here the Canadian Acts with reference to both petroleum and lead, which are to my mind very instructive as connected with a matter of this sort. Under these Canadian Acts, a certain stipulated amount was appropriated to be paid in bounties to cease when that amount had been exhausted. The bounty was to be paid upon lead production, whenever the price went below a fixed stipulated amount. If the price of lead went above that amount the payment of the bounty immediately ceased. In other words, it was a direct offer to the producers. 'We guarantee you that you shall get a certain price; you sell your product upon the market, and whatever the market price is below this fixed price, we make up the difference to you in the form of a bounty.' Under the provision of that bill in the year 1909, the Canadian Government paid $307,434, as a lead bounty; in 1910, $340,542.

"The same results obtained with reference to petroleum and a number of these minerals. The production has been stimulated and industries have been developed by virtue of that bounty system.

"The one thing that you have in hand to do is to win the war. It does not matter what it costs. If manganese ore, if chrome, if wheat and food ingredients are the essential things to win the war, we must have them no matter what they cost, and, therefore, it seems to me that whether manganese ore costs $50 a ton or $5,000 a ton, if it is essential, we are going to have it and I believe that through this legislation, provision can be made by which the production can be brought out, the ships be released for foreign service and every requirement met at the earliest date."

Index to Advertisers

(*Continued from page 5*)

duPont de Nemours Powder Co., The E. I.	12
Electric Service Supplies Co	25
Edison Storage Battery Company	Cover
Electric Storage Battery Company	9
Electric Railway Equipment Company	35
Egyptian Timber Company	29
Elmore, G. H	27
Equitable Powder Company, The	12
General Briquetting Co., The	35
General Electric Company	7
Goodall Brothers	37
Goodin, Reid & Company	17
Goodman Mfg. Company	17
Goodrich Rubber Co., The B. F	21
Granville Supply Company	31
Hazard Mfg. Company	14
Hercules Powder Company	13
Hockensmith Wheel & Mine Car Company	23
Hoffman Brothers	37
Holmes & Bros., Inc., Robert	18
Hunt & Company, Robert	33
Illinois Zinc Company	33
Indiana Laboratories Co., Inc., The	37
International High Speed Steel Co	4
Irvington Smelting & Refining Works	33
Jeffrey Mfg. Company, The	Outside back cover
Koering Cyaniding Process Company	41
Laubenstein Mfg. Company	31
Ledoux & Company, Inc	33
Leetonia Tool Company, The	31
Lehigh Coal & Navigation Co., The	42
Longyear Company, E. J	33
Lunkenheimer Co., The	31
Macomber & Whyte Rope Company	14
Machinery Warehouse & Sales Co	35
Marioneaux, Stott & Beck	37
Monongahela Wood Preserving Co	37
Morse Chain Co	Cover
Mudd, Seeley W	37
Nicholson & Co., W. H	37
Ohio Brass Company, The	25
Ohio Grease Company, The	29
Pacific Tank & Pipe Company	23
Payne, Henry Mace	37
Phelps Dodge Corporation	33
Phillips Mine & Mill Supply Company	6
Pitkin, Lucius, Inc	33
Pneumelectric Machine Co., The	18

(*Continued on page 238*)

J. H. WHEELWRIGHT HEADS NATIONAL COAL ASSOCIATION

Philadelphia Meeting of Operators' Organization Proved to be a Most Interesting Gathering

Officers were elected at the Philadelphia meeting of the National Coal Association as follows: President J. H. Wheelwright; vice-presidents, H. N. Taylor, G. H. Barker, and T. H. Watkins; general secretary, J. D. A. Morrow; treasurer, J. J. Tierney.

Executive Committee.—J. J. Wheelwright, W. K. Field, H. N. Taylor, G. H. Barker, T. H. Watkins, T. B. Davis, A. M. Ogle, W. H. Huff, George Reed, and Erskine Ramsey.

MR. WHEELRIGHT'S ADDRESS

Immediately following his election Mr. Wheelwright addressed the meeting as follows:

"My friend, Mr. Field, and myself have worked shoulder to shoulder and side by side since the conception of the National Fuel Association; and because he is retiring and I am now taking the position that he occupied and fulfilled with such ability and patriotism does not separate from the National Coal Association or change in one whit the policy that he has carried out, and he will be by my side during the coming year to help me. (Applause.)

"When we started the National Coal Association, we had one platform, and I am sure, gentlemen, that platform prevails today and will prevail as long as the National Coal Association is in existence, and that was: That we were behind the United States Fuel Administration, first, last, and all the time. (Applause.)

"As the soldier looks to the War Department, so must we look to the Fuel Administration without criticism, obeying their orders and carrying out the absolute necessities of the Government which is producing coal. There is no regiment in the front that has a greater duty to perform than the coal operators who are assembled here today representing what they do, the necessity of necessities, and without our cooperation, how can this magnificent bridge that has been built by the Shipping Board consisting of concrete, steel and wood—which is ships that for three thousand miles are carrying our soldiers and supplies across to the battle line, how can they exist unless each one of us in our hearts decide today that we will produce more coal?

"Mr. Morrow stated yesterday in his speech that it was absolutely necessary to produce, anthracite and bituminous, 735,000,000 tons of coal. You are all practical men, you know what that means. It means that when you go home and to the men, your associates, whom you have left at home, you must tell them. 'Today is the day we start.' We have got to produce coal, otherwise, gentlemen, our properties will be taken over by the Government, and we will suffer the blame because we have not been patriotic as far as the world is concerned. I know today, and I have seen meeting after meeting of coal men, and I have yet to find one single solitary instance where they have not been patriotic to the very limit. It is just one thought that I want to impress, that your officers and your Board of Directors will try to perform their duty for the coal operators of the United States without one single, solitary, selfish thought, without one single, solitary, sectional proposition, and the only thing that stands above our duty to you, which is not that, because it is our duty to our country and that is your duty, is our support to the United States Government."

MR. CALLOWAY TALKS

A. W. Calloway, of the Fuel Administration, enumerated the increased uses of coal in his address at the meeting. He said in part:

"Some idea may be gained of the increased uses making up our large requirements from the following:

"For industrial use the increased requirement is 35,000,000 tons.

For gas and electric utilities the increased requirement is 5,000,000 tons.

"For railroad fuel the additional requirement is 12,000,000 tons.

"For foreign bunkers the increased requirement is 4,000,000 tons.

"For substitution of coal for oil in the West, the increased requirement is 4,000,000 tons.

"For domestic use increased requirements are 9,000,000 tons.

"This increase for domestic requirements is due to the necessary substitution of bituminous coal for anthracite coal brought about by the expected shrinkage in anthracite coal available for domestic use, and, as you know, in substituting bituminous coal for anthracite coal, it is necessary to assume one and one-half tons of bituminous to represent each ton of anthracite coal.

"A few high spots in the increased bituminous demands for industrial purposes are as follows:

"Smokeless powder plants, for steam purposes, about 3,000,000 tons.

"Steel industries, excluding by-product coal, 13,000,000 tons.

"By-product coke ovens, 5,500,000 tons.

"Shipyards, 1,500,000 tons.

"I want to stop long enough right now to say, gentlement, that since I took these figures down yesterday those estimates will have to be revised; additional demands have been made upon us.

"Taken as a whole, therefore, the actual requirements are estimated to be approximately 15 per cent greater for 1918 than for 1917, while the maximum estimate of increased production for 1918 is 7½ per cent.

"Do these figures indicate to you the nature of the problem confronting the Fuel Administration and yourself when you realize that the success of the entire war program depends upon our ability to distribute the available bituminous coal in such a manner that a sufficient quantity of the proper grade of coal will be furnished to all war industries and other essential uses, and at the same time to insure a continuous supply?

"We have mentioned before that the excess requirements for essential use must be met by either conservation or restriction, and of the two things, naturally conservation is the lesser of the two evils, yet the harder one to regulate or enforce. A restriction of the industry will solve the problem for us, but it is, of course, the last thing to be desired. It is upon the success of the conservation program, therefore, that the continuance of industries not directly essential to the war program must depend. This conservation program has two distinct sides: the consumers' and the producers', and it is upon you men that the producers' responsibility must fall, and I am firmly convinced that, if the producers' side of the conservation plan could be carried out to the limit, more than one-half of the estimated shortage could be made up. It is a difficult task that I am assigning to you, but not too difficult. It only means that you must eliminate all impurities possible from the coal you are asking the railroads to transport to the consumers, restoring the pre-war competitive standards of quality which in itself will result in at least a 5 per cent greater efficiency over the coal now being marketed, increasing the efficiency of transportation in the same manner, improving the quality of coke, increasing the efficiency of boilers, whether in power plants, railroad locomotives, or in the holds of vessels transporting our men and materials across the water, and reducing the amount of labor required in securing these results and after you have gone this far you cannot stop, you must go further and see that your coal is prepared even better than during the pre-war period, and, if the production of certain mines is of such a character that it should not be marketed, those mines must not be permitted to use our transportation facilities nor any portion of our insufficient labor supply, but every available miner and every available railroad car must be placed at or in those mines producing the better grades of coal."

MR. MORROW'S SPEECH.

An extract from the remarks of Mr. Morrow is as follows:

"It is, perhaps, not only proper, but desirable that I should say something about the comparison of the coal industry of the United States under these conditions with that of Germany. We now understand fairly well that for modern war to be anywhere near successful, the armies in the field must be supported by equally effective and magnificent war machines built up in the industrial life of the country behind the armies. It is important for us to understand that Germany had exactly that kind of an industrial machine completed before ever this war began. The entire electrical industry of Germany was centralized in two great groups of producers that work with each other in entirely harmonious relations throughout all their numerous subsidiaries. The chemical industry of Germany, new and all-important, leading the entire world in that line of endeavor, was centralized in two groups of producers which were working together in relations that were all mapped out harmoniously under a fifty-year agreement. That industry was the very basis of the German manufacture of drugs, chemicals, explosives, gas—all the other products of that kind that have entered so largely into the support of the German armies and into their offensive campaigns. The blast furnaces and iron men of Germany were organized in the Rhine basin into one single centralized concern that controlled 97 per cent of the output of pig iron, grey iron, spiegel, and other products of that character, and it was intimately related with the single central agency, the Stahlwerks Verband that controlled absolutely the production and sale of steel in Germany.

"Now in the coal industry the important part of the coal industry in Germany was in the Rhine Valley in the western part of the German Empire. That was the part that supported the steel plants and the great industrial activity of the German Empire. And the coal industry in that section of the Empire was organized into one single, central concern; it not only sold the output of the mines at wholesale, of all those mines, but, in addition, it controlled groups of wholesalers and retailers. The chairmen of those groups were members of the central combination. It controlled the works on the Rhine itself. In a word, it had in its hands the control of the entire distribution of coal throughout Germany. That organization was matched in the Selisian coal fields by a similar organization, not nearly so important or large, because the production was not so large. That organization in the Rhine Valley was intimately related with and connected with the combination of iron and steel producers I have just mentioned, and they, in turn, connected with the important electrical and chemical concerns. So that when Germany undertook to swing her industrial machine into line behind her armies, she did not have to organize at the bottom and organize it all up for that purpose, she needed only to get in touch with the fuel leaders who were responsible for the action of these central combinations. It was simply like touching a row of buttons and the whole machine sprang into action like a bit of well-ordered mechanism.

"That was the industrial organization that Germany had behind her armies to begin the war with. I submit to you that under all the circumstances, it is not at all surprising that to this hour she has been able to defy the united force and efforts that nations that were greater industrially than hers put forth, because she was organized to support her military campaign, and the other nations were not. The answer is that we, too, must organize exactly in that manner.

"Now when I say that, I do not mean to imply we should follow the German method. We here in the United States believe that it is better not only for the life of the nation, but for the industry itself to have any branch of industry composed largely of independent producers—not necessarily large or small, but independent, working with each other and still preserving that independence. We also believe that it is not necessary nor desirable to have the same type of paternalism in industry that has been characteristic of Germany. Why, in Germany, some of the coal mines that are owned and operated by the Prussian government are members of that combination in the Rhine Valley, and it is significant that when the combination agreement expired on January 1, 1915, the German Imperial Government required every producer of coal in that section to go into the combination and to continue it. The reason for that obviously was that they needed the centralized direction of the distribution of coal. So that when Germany set up what would correspond to our Fuel Administration, the major part of the work was already done, done by the coal men in Germany themselves.

"But it is, as I said a moment ago, equally necessary for us to build up here an industrial war machine that will support our military war machine just as effective as Germany's. In the coal industry you gentlemen are a part of that machine. I want to make that distinctly clear. We will have to think of you in that way and we will have to ask you to think of yourselves in that way, and just as the soldier has to subordinate his wishes to the general plan, so you will find it necessary, in many respects, to lay aside your personal desires and privileges and submit your wishes to the general plan for the industry as a whole in support of the war program.

"To date you are doing it admirably, and I have no doubt you will continue to do so.

"I just want to say this one word in conclusion, that for you to take action, to play that part in the prosecution of this war, there will not be any sleeves with chevrons, no shoulder straps with stars, no military medals or anything of that kind, but you will have the consciousness that you are very definitely doing your part to make the world safe for democracy. I thank you." (Prolonged applause.)

OPENING OF NEW COAL MINES LIMITED UNDER NEW REGULATIONS

The Fuel Administration will encourage the opening of new coal mines, whenever it appears to its satisfaction that this can be accomplished without taking labor from mines already developed and capable of producing more coal than at present, so that the net result will be an increased production of coal when the entire field is considered.

Coal is not commercially produced until it is loaded into railroad cars at the tipple. The Fuel Administration is, therefore, unwilling to approve of the opening of new mines, even when labor is abundant, if it appears to the United States Railroad Administration impossible or inexpedient to furnish the necessary railroad facilities.

To satisfy the two administrations upon these points the following procedure will be adopted:

1. All applications for the development of new mines shall be taken up in the first instance with the railroad upon which the connection is desired, full information in regard to the proposed operation accompanying the application. Four copies of applications and papers are to be filed.

2. Three copies of the application and accompanying papers will be forwarded to the Regional Director for his approval or disapproval.

3. The Regional Director will forward two copies of the application and papers with his approval or disapproval to the Director, Division of Transportation, United States Railroad Administration.

4. The Director, Division of Transportation, United States Railroad Administration, will submit one copy of the application and papers with the recommendation of the Regional Director to the United States Fuel Administrator.

5. Representatives of the United States Railroad Administration and of the United States Fuel Administration will, thereupon, agree upon the approval or disapproval, and a single notice of the disposal of the case indicating joint consideration and action, will be sent to the applicant through the office in which the application originated.

MANGANESE ORE PRICE SCHEDULE GIVEN OUT

War Industries Board Reaches an Agreement with Iron and Steel Institute—Increase Made Over Prevailing Prices.

A schedule of prices on manganese ores produced in the United States has been agreed to by the American Iron and Steel Institute, and has been approved by the War Industries Board. The prices are fixed at a figure higher than the prices on this ore that have prevailed in past months. The new price schedule became effective on transactions taking place after midnight of May 28. No announcement is made as to the length of time that this schedule of prices is to remain effective.

The following schedule gives domestic metallurgical manganese ore prices per unit of metallic manganese per ton of 2,240 pounds for manganese ore produced and shipped from all points in the United States west of South Chicago, Ill. This schedule does not include chemical ores as used for dry batteries, etc. The prices are on the basis of delivery f. o. b. cars South Chicago, and are on the basis of all-rail shipments. When shipped to other destination than Chicago, the freight rate per gross ton from shipping point to South Chicago, Ill., is to be deducted to give the price f. o. b. shipping point.

Schedule for ore containing when dried at 212 degrees Fahrenheit:

Per cent.				*Per unit.*
35 to 35.99	inclus.,	metallic	manganese,	$ .86
36 " 36.99	"	"	"	.90
37 " 37.99	"	"	"	.94
38 " 38.99	"	"	"	.98
39 " 39.99	"	"	"	1.00
40 " 40.99	"	"	"	1.02
41 " 41.99	"	"	"	1.04
42 " 42.99	"	"	"	1.06
43 " 43.99	"	"	"	1.08
44 " 44.99	"	"	"	1.10
45 " 45.99	"	"	"	1.12
46 " 46.99	"	"	"	1.14
47 " 47.99	"	"	"	1.16
48 " 48.99	"	"	"	1.18
49 " 49.99	"	"	"	1.20
50 " 50.99	"	"	"	1.22
51 " 51.99	"	"	"	1.24
52 " 52.99	"	"	"	1.26
53 " 53.99	"	"	"	1.28
54 and over		"	"	1.30

For manganese ore produced in the United States and shipped from points in the United States east of South Chicago 15 cents per unit of metallic manganese per ton shall be added to above unit prices.

Above prices are based on ore containing not more than 8.00 per cent silica and not more than .25 per cent phosphorus, and are subject to:

Silica, premiums and penalties—For each 1 per cent of silica under 8 per cent down to and including 5 per cent, premium at rate of 50 cents per ton; below 5 per cent silica, premium at rate of $1 per ton for each 1 per cent.

For each 1 per cent in excess of 8 per cent and up to and including 15 per cent silica there shall be a penalty of 50 cents per ton; for each 1 per cent in excess of 15 per cent and up to and including 20 per cent silica there shall be a penalty of 75 cents per ton.

For ore containing in excess of 20 per cent silica a limited tonnage can be used, but for each 1 per cent of silica in excess of 20 per cent and up to and including 25 per cent silica there shall be a penalty of $1 per ton.

Ore containing over 25 per cent silica subject to acceptance or refusal at buyer's option, but if accepted shall be paid for at the above schedule, with the penalty of $1 per ton for each extra unit of silica.

All premiums and penalties figured to fractions.

Phosphorous penalty—For each .01 per cent in excess of .25 per cent phosphorus there shall be a penalty against unit price paid for manganese of ½ per cent per unit, figured to fractions.

In view of existing conditions and for the purpose of stimulating production of domestic manganese ores, there will be no penalty for phosphorus so long as the ore shipped can be used to advantage by the buyer. The buyer reserves the right to penalize excess phosphorus as above by giving sixty days' notice to the shipper.

The above prices to be net to the producer; any expenses, such as salary or commission to buyer's agents, to be paid by the buyer.

Settlements to be based on analysis of ore sample dried at 212 degrees Fahrenheit. The percentage of moisture in ore sample as taken to be deducted from the weight.

Payments—Eighty per cent of the estimated value of the ore (less moisture and freight from shipping point), based on actual railroad scale weights, to be payable against railroad bill-lading with attached certificates of sampling and analysis of an approved independent sampling chemist. Balance on receipt of ore by buyer. Actual railroad scale weights to govern in final settlement. Cost of sampling and analysis to be equally divided between buyer and seller.

Harris & Ewing.

JOHN F. SHAFROTH

Colorado Senator who has taken an active part in the hearings on the war minerals bill.

GRADE A ZINC PRICE CONTINUED UNTIL SEPT. 1

The President has approved an agreement, made between the producers of Grade A zinc and the Price-Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the maximum base price on Grade A zinc of 12 cents per pound f. o. b. East St. Louis, be continued until September 1, 1918. The price at point of delivery is to be the East St. Louis price plus the freight from East St. Louis to point of delivery.

The conditions are, as formerly: First, that the producers of Grade A zinc will not reduce the wages now being paid; second, they will sell to the Allies, to the public, and to the Government at the same price; third, that they will take the necessary measures, under the direction of the War Industries Board, for the distribution of the Grade A zinc to prevent it from falling into the hands of speculators who might increase the price to the public; and fourth, that they pledge themselves to exert every effort necessary to keep up the production of Grade A zinc so as to insure an adequate supply so long as the war lasts.

RATE OF TAXATION ON OIL PRODUCED IN MEXICO

The Mexican treasury department has issued the following rates of valuation upon which the petroleum tax of 10 per cent shall be collected during the months of May and June. New rates are established every two months. The valuations and their equivalents in American gold per barrel are given herewith:

Combustible petroleum of a density of 0.91, valuation $10.50 Mexican gold per ton, or $5.25 American gold. Total tax 52½ cents American gold per ton, or about 7½ cents per barrel.

Crude petroleum of a density of 0.91, valuation $13.50 Mexican gold, or $6.75 American gold per barrel. Total tax, 67½ cents American gold, or about 9½ cents per barrel.

Petroleum of a greater density than 0.97, $5.50 Mexican gold per ton, or $2.75 American gold. Total tax 27½ cents American gold, or a fraction under 4 cents per barrel.

Gas oil valuation $10.50 Mexican gold per ton, or $5.25 American gold. Total tax, 52½ cents American gold, or about 7½ cents per barrel.

Refined gasoline in cans or in bulk 12 cents valuation per half liter, or about 96 cents per gallon in Mexican gold, or 48 cents American gold, the tax being 10 per cent, or 4.8 cents per gallon.

Crude gasoline, in cans or in bulk, valuation $1.20 per gallon Mexican gold, or 60 cents American, with the corresponding tax of 6 cents per gallon.

Kerosene, crude or refined, 12 cents Mexican gold per gallon, or 6 cents American gold, with a tax of six-tenths of 1 cent per gallon

The announcement was accompanied by this official statement:

"With crude oil selling in the market at from $1 to $3 and more per barrel, the tax of 4 to 9½ cents per barrel is surely very far from being onerous. And when to that is added the tax of 10 cents per acre per annum on oil lands, it seems difficult for a fair minded person, or one familiar with oil taxation elsewhere, to find any basis for the charge so frequently made that Mexico's oil taxation is confiscatory. Certainly the large operators do not find it so, as they are all extending their works and developing territory."

To Represent War Labor Board

The National War Labor Board has appointed William P. Harvey, of Kansas City, Mo., to be one of the two joint field representative of the board. Mr. Harvey's selection was made by Frank P. Walsh, who, with former President William H. Taft, is joint chairman of the board. The second field representative will be chosen by Mr. Taft. Mr. Harvey is the publisher of the American Oil Journal, and was formerly managing editor of the Kansas City Post.

REDUCTION OF 10 CENTS MADE IN COAL PRICE

Concession Made When Railroads Agree to Abandon Policy of Assigned Cars—Rail-Road Fuel Matter Settled.

Ten cents a short ton was stricken from the mine price of all bituminous coal in the United States, by an order of the Fuel Administrator dated May 24. The new price took effect at 7 o'clock May 25, and represents an average reduction of nearly 5 per cent. The order reads as follows:

"The United States Fuel Administrator, acting under authority of an Executive Order of the President, dated August 23, 1917, appointing said Administrator and of subsequent Executive Orders and in furtherance of said orders and of the Act of Congress therein referred to and approved August 10, 1917.

"Hereby orders and directs that all prices for bituminous coal f. o. b. mines in the coal producing districts throughout the United States fixed by the said Executive Order of the President, dated August 21, 1917, and subsequent orders of the United States Fuel Administrator, and in effect at 7 a. m. on the 25th day of May, 1918, shall be and the same hereby are reduced as to all shipments made after 7 a. m. on the 25th day of May, 1918, by the sum of 10 cents for each net ton of 2,000 pounds.

"This order shall in no way affect the increase contained in the Executive order of the President, dated October 27, 1917, adding the sum of 45 cents to the prices fixed for bituminous coal under the terms and provisions set forth in said last mentioned order."

The reduction will mean an annual saving to consumers of a sum estimated by the Fuel Administration at $60,000,000. The President has directed that the railroads pay the government price for coal. The increased cost of railroad fuel thereby occasioned is also estimated at $60,000,000 per annum. The reduction of 10 cents per ton on all coal will, however, reduce the net increased cost to the railroads from $60,000,000 per annum to $45,000,000 per annum. Under the President's plan, the railroads will furnish cars to all coal mines alike, without discrimination except as dictated by the prior requirements of the railroads for operating purposes and the needs of domestic consumers and of the war.

Under the present war demands, the maximum output of every mine working at full time would still be insufficient to meet the country's coal needs. The principle of equal car supply has accordingly been adopted so as to make for as steady an operation as possible of all properties, and for continuous employment of men, thus making for maximum output.

The introduction of the principle of even car supply will reduce the general average overhead of mine operation, and thereby justifies the administration in putting out a price reduction order, Dr. Garfield says. It is understood that the mine prices thus fixed will remain undisturbed until the United States Fuel Administrator has before him the cost returns for the twelve months ending August 31, 1918. The returns thus far in are being carefully studied by Fuel Administration accountants and engineers with a view to making the utmost saving to the public that is consistent with a maximum production of coal.

The order issued tonight will have no effect on the price of anthracite coal, which forms the bulk of the domestic consumption fuel in the eastern part of the country.

Consumers of bituminous coal who have already entered their orders for the year's coal supply, but whose coal has not yet been delivered, will, of course, receive their supplies at the reduced price effective tomorrow. This price applies to all coal which leaves the mines after 7 a. m. May 25, no matter how long the order for the delivery of the coal has been standing.

Coal delivered after 7 a. m. May 25, under contracts which have ben entered into since December 29, 1917, will be billed at the new price. Under the regulation of the Fuel Administration all such contracts call for the delivery of coal at the government price effective at the time of delivery.

A Valuable Publication

The Keystone Consolidated Publishing Company, Inc., of Pittsburgh, Pa., has just issued their annual book relating to the coal fields of the United States.

The publication is handsomely bound, and is comprehensive from every standpoint.

They have combined this year The Coal Catalogue and The Coal Field Directory. The book contains articles on rank, usage, analysis, geology, storage, and preparation of coals, together with information valuable to the producer and consumer of coal.

Quite a little space is given to a description of the productive formations of each coal mining state in the union; map of each state, showing the various mining districts or fields; description of the seams mined; list of mines operating in the various seams, including name of company, general office address, county, railroad and shipping point, etc.

It also includes a complete directory of all coal mines in the United States, with a list of their officers, last year's output, sizes of coal shipped from each mine, etc.

The book is by far the most comprehensive publication ever published concerning the coal mining industry, and should be in the possession of all those interested in that branch of the mining industry.

OIL LAND LEASING BILL PASSES HOUSE

After Bitter Debate Measure is Acted upon Without a Roll Call—Extracts from Opinions of Representatives.

Without the necessity of a roll call the House of Representatives on May 25 passed the Oil Land Leasing Bill. Some of the more striking features of the consideration of the bill are set forth in the following extracts from remarks made on the floor of the House:

Mr. Taylor of Colorado. Owing to the very great shortage of oil, the very great consumption in excess of production, I assume that every member of this House is very much in favor of oil development. With a shortage of 60,000,000 barrels this year, every patriotic citizen should be in favor of any fair law that will encourage oil development, and if this House is in favor of oil development there is certainly no reason for handicapping it by any more restrictions than are already in this bill. I may say that there is not a Western member of this House, certainly none from the States to which this legislation will apply, who is satisfied with this bill. It is much more drastic than we feel it ought to be . It will not bring about the development that the country needs and would get under a more liberal bill. At the same time we have agreed to accept this bill as the best we can get, and for that reason have not filed a minority report.

Mr. Mondell of Wyoming. It is my opinion that in all the history of legislation nothing of this kind has ever been proposed in a free, self-governing country. Let us assume, if you please, that a hundred years ago the great State of Pennsylvania had been deprived of the right to tax all of its coal and all of its oil land values, save and except as it could lay a tax on output, what would be the condition of that great Commonwealth today under those circumstances? Why, communities would be impoverished, roads would be impassable, schoolhouses would be of a character not fit for the education of the children of an enlightened community. And yet that is what it is proposed to do here, namely, to withhold for all time the right to tax all of the enormous values that are in these lands. And the communities are to be compelled to build roads, to educate their children, to maintain public order, without the right to tax these lands or their values. We are asking that in lieu of the taxes that would have been secured from these lands half of the royalties collected shall be paid into the States and communities which produced them. Is that unreasonable? What are we proposing to do with the money? Put it in the reclamation fund? Put it in the reclamation fund from California or Colorado or Wyoming in order to build reclamation projects in other States. That is a worthy purpose, but it will not help to build any schoolhouses, and it will not provide any roads, and it will not help to maintain public order in the communities from which these royalties have been derived. It is all very well for the communities that do not have any of these minerals to secure the benefit of all these royalties, but the States and communities that have produced them are entitled to at least enough of them to recompense them for the loss they suffer by reason of the fact that the lands are not to become private property and thus a source of public revenue through taxation.

If the bill becomes a law in this shape the lash of public opinion will eventually compel the modification of this provision in order to do justice.

Within a week I have had letters from a western State asking if I approved that provision. Well, I have tried to be kind to my colleagues, and therefore I did not suggest that there were people nearer home that ought to be consulted about it. But there is no justification for a provision such as the bill contains. It ought never to have been in the bill. My understanding was when the bill was originally drawn that it was to provide that half of the proceeds of royalties were to remain in the States and community to reimburse and recompense them for the loss of taxing values, and the other half was to go to the reclamation fund. And that is what should have been done and what ought to be done now. I realize it is useless to offer an amendment to accomplish that purpose here and now, but I still hope it will be done before the bill becomes a law.

Mr. Taylor of Colorado. I want to ask the gentleman from Wyoming if he does not himself think it is uncalled for, unwarranted, and unfair to us Members from the West, who are on this Public Lands Committee, for him to get up on this floor and say he does not think we have made a proper effort to protect the interests of our States, and proceed to recite how many acres of oil lands there are in each State, and how much money we are going to lose in royalties and taxes, when he fully knows that we have been constantly holding hearings and earnestly fighting for four months on this bill almost day after day, doing our utmost to protect the interests of the West, and we have secured the best possible bill that can be passed through this House, and I think everyone knows it?

Mr. Ferris of Oklahoma. As the bill passed the Senate the oil men felt that they had fared pretty well. They did. The Navy Department was protesting with all the steam they had at their command, and the Department of Justice with all the steam they had. The Secretary of the Interior agreed to but a part of the provisions that went into the bill. The bill came over here and was referred to the Committee on Public Lands Our committee set to work to have hearings in an effort to thrash out the differences and try to get at some plan whereby we could do justice to these oil men—and they are good, honorable men, every one of them, and nothing but the most honorable tactics have been maintained by them throughout the whole proceeding

We had these hearings lasting five or six weeks. We called to our aid a representative of the Department of Justice, which had started the 55 suits, and their representative sat there through every part of the six weeks' hearing. We called to our aid the Secretary of the Navy, and he designated Commander Wright, one of his representatives, who sat there and observed everything we did and said. Secretary Lane furnished us Judge Finney, one of his law officers, to come and help us. They were all helpful. They were all anxious to do their duty. Our committee was patient and earnest. It was a hard job; it was a difficult job. We labored as faithfully as we knew how, and every man on the committee, on both sides, was patriotically and honestly trying to do the right thing; trying not to rob these men, who had honestly spent hundreds of thousands of dollars to develop that desert waste; trying not to take the last penny they had. No one wanted to do that. On the other hand, we did not feel that we ought to surrender to the oil men and let them have all of their amendments. They had 25 or 30 amendments which they wanted inserted. I do not criticize them for that. It is natural. Human nature is very much the same everywhere. It is the same in my State; it is the same in Wyoming; it is the same in California. The ordinary citizen feels that anything that he can divest his Government of and give to himself with color of honor he ought to do it. I do not want to render any wholesale indictment against people, but human nature is just the same everywhere. We sat there for six weeks. The oil men came and laid their cards on the table. They offered 25 or 30 amendments. I had their amendments printed in italics in the bill as a special committee print, so that everyone could see what they were. Some of the amendments we adopted and some of the amendments are in the bill, and made it better than it was before. With such intelligence and light as we had before us we accepted them, but on this question of relief we did not accept their proposal. Their proposal, as advocated before the Senate and elsewhere, was, in a word, to direct the dismissal of the 55 suits. I do not think a legislative body ought to do any such thing now or tomorrow or at any time. It is taking too much responsibility. Their plan was to direct the issuance of patents to these lands.

JOHN P. WHITE MADE MEMBER OF LABOR POLICY BOARD

John P. White, labor adviser to the Fuel Administration, has been named as the representative of the Administration on the Labor Policy Board, of which Felix Frankfurter is chairman.

It is the task of the Labor Policy Board to find out what the needs of labor are, so that a labor budget can be made. The government departments having industrial service bureaus independent of each other, have given rise to some confusion and waste, variations in wages leading workmen to leave one job for another. In one sense, the Labor Policy Board will constitute a centralized employment agency for the United States.

John P. White, with his special knowledge of mine labor and its problems, will be a valuable representative on the new board. In announcing his appointment to Mr. Frankfurter, Fuel Administrator Garfield took occasion to say: "Mr. White, as you well know, has rendered very valuable service to the Administration, and through it to the country, and I am sure will bring to this new duty valuable experience and exceptional ability."

ANTHRACITE FOR CANADA IS TO BE LIMITED

Plans for the restriction of the movement of anthracite coal from the United States to Canada during the present coal year have been formulated by the United States Fuel Administration, in cooperation with the fuel controller of Canada. A representative of the United States Fuel Administrator attended a recent conference of representatives of coal operators, coal miners and railways in Canada, at which this problem was discussed.

The conference reached an agreement as to the movement of anthracite coal into Canada, embracing the following:

Anthracite coal supplies to points in western Canada will be materially restricted during the present coal year.

No American anthracite will be available for shipment to points west of Winnipeg.

The Canadian public, both east and west, must be given to understand distinctly that conservation of coal must be practiced to the utmost extent by all classes of consumers.

New Montana Prices

Montana—Mine run, $2.70; prepared sizes, $3.60; slack or screenings, $1. The former prices were: Mine run, $2.65; prepared sizes, $3.30; slack or screenings, $1.50.

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EXPECTS TO CONSERVE FUEL AT POWER PLANTS

The United States Fuel Administration recently announced the appointment of Thomas R. Brown, of Pittsburgh, as administrative engineer for the Pittsburgh district and C. P. Billing as special staff assistant. These appointments were made as a preliminary step toward putting into operation a general plan for fuel conservation in power plants.

The plan contemplates the saving of from 10 to 20 per cent—25,000,000 to 50,000,000 tons—of the coal used annually in industrial plants. This will be accomplished by means of correct operating methods without the delay and expense involved in the installation of new or improved equipment.

The program is at present in effect in the Pittsburgh district, which will be used as a model, with the expectation that the campaign for the elimination of waste will be extended to all of the principal coal-using districts.

The program comprises certain fundamentals:

1. Personal inspection of every power plant.
2. Classification and rating of every power plant, based upon the thoroughness with which the owner conforms to recommendations of the United States Fuel Administration, involving the generation and use of power, heat and light.
3. An administrative engineer to be placed in charge of the work in each state or district. It will be one of his duties to rate the plants from information received through reports of inspectors, who will merely act to collect certain definite information regarding each plant.

TO RESERVE ANTHRACITE FOR DOMESTIC FUEL

Anthracite intended for domestic fuel is not to be diverted for industrial purposes.

The Fuel Administration's attitude in this matter is made clear in a letter defining its policy, which said:

"The Administration is satisfied that one of the causes of our domestic difficulties last winter in New England was due to the fact that with the extreme shortage of bituminous coal prevailing in New England and the northwestern section of this country dealers were prevailed upon by industries to give them domestic sizes of anthracite in order that they might keep their plants in operation.

"Every ton of coal so diverted from its proper and normal channels of consumption meant increased difficulty on the part of domestic consumers in having their requirements taken care of. The Administration does not want any anthracite coal turned over to industrial plants without having the case passed upon and the fact established that the industry must have anthracite coal, and, further, that no dealer can deliver anthracite to an industrial concern without an exemption from the Federal Fuel Administration."

Oklahoma Coke Prices

Blast furnace or smelting coke made in beehive ovens at the Howe plant of the Howe-McCurtain Coke Company, in the state of Oklahoma, is fixed at a maximum price of $10.75, while 72-hour selected foundry is permitted to be sold at $11.75.

Central Department of American Mining Congress Doing Big Work for Advancement of Mining in Middle and Southern States Through New Louisville Office

In the special effort for the general advancement of mining in the middle and southern states, decided upon some months ago by the American Mining Congress leaders, much progress is now being shown in the work going through the new Louisville office, which has recently been located in the Lincoln Trust Building, at Fourth Avenue and Market Street.

William M. Conrad, Central Secretary of the Congress, is in charge of the new headquarters, and already, it is pointed out, has gone far toward making it a center for general use of mining men in many problems affecting the industry as well as directing others looking forward to securing new developments in the southern and central sections of the country.

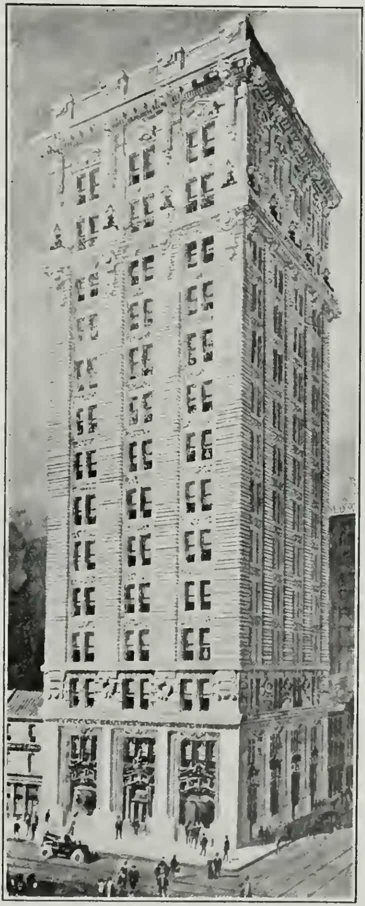
Thusly, with the establishment of the Louisville office, the American Mining Congress, it is now pointed out, is splendidly located in the three great sections of the country, east, central, and west—and from the vision which Secretary James F. Callbreath gets at the present, is in splendid position to render service of the highest order to the mining interests of the country.

The big problems affecting national legislation and matters at Washington will be under Secretary Callbreath's general supervision, as in the past, while the problems arising in the central field will be taken up by Mr. Conrad, and those in the west by Mr. John T. Burns, western secretary, with offices in the Tabor Opera House block, in Denver, Colo.

In his work on the Mineral bill, Secretary Callbreath has seen the wonderful possibilities which it offers to certain of the central states and practically the greater portion of the southern states, where for years known splendid mineral lands have been allowed to remain idle on account of adverse mining and marketing conditions, and through the new central office is desirous of having the American Mining Congress furnish the maximum of aid in the situation to the mining interests of the country.

During the past month Mr. Conrad has spent some time in southwest Virginia looking into the prospects for development of a number of the large deposits of manganese and other metal ores of the section, and has been much impressed with the interest being shown by capital from the east.

The recent electro-chemical meeting in



LINCOLN TRUST BUILDING, LOUISVILLE, IN WHICH A BRANCH OFFICE IS LOCATED.

east Tennessee, he points out, has in a large measure served to rivet the eyes of the mining world on the large possibilities of the section, and this, together with the possibility of cheap electric power furnished from a great government plant at Sheffield, Ala., has made the prospect especially worthy of consideration by capital.

In West Virginia, Tennessee, Kentucky, and Alabama there is much development work in coal, and the Mining Congress, through its influential membership in these states, is aiding in this general advancement of the work of the industry.

In the move for the placing of the West Virginia Coal Association on a sound footing, the Mining Congress, through Mr. Conrad, is putting forth every effort to secure the fullest cooperation between the operators, its vice-president for the state, Mr. C. H. Jenkins, of the Hutchinson Coal Company, of Fairmont, being one of the guiding spirits of the work, while another influential member, Mr. W. H. Cunningham, of Huntington, is the secretary.

While the Mining Congress has a specially influential membership in the states of Tennessee and Alabama, the leaders are aware of the opportunities for development in the different sections of these states, and are especially desirous of widening the lines of activity.

Already, following along this general line for development of the mineral resources of the south, it has been suggested that a gathering of the American Mining Congress in Birmingham, bringing into the great iron and steel city of the south representatives of some of the largest mining companies of the country, would give great impetus to the work for the development of the section, and already the matter is being discussed with a view of concluding arrangements for such a move.

With the establishment of the new central office in Louisville, it is the intention of the leaders of the American Mining Congress that every mining man passing through the city shall avail himself of the information gathered there, and thusly aid in the big program for the general development of the mining interests of the section as planned.

Current Federal Legislation

Bills of interest to the mining industry which have been introduced since our last report are as follows:

H. R. 12032, introduced by Mr. Gallivan, authorizes the Secretary of the Interior, through the Bureau of Mines, to make experiments and investigations of peat to determine the commercial and economic practicability of its utilization in producing solid fuel, gas for power, and other purposes, nitrogen oils and tars and other products. The bill has been referred to the House Committee on Mines and Mining.

H. R. 12192, introduced by Mr. Norton, directs the Secretary of the Interior, through the Bureau of Mines, to make experiments and investigations of lignite coals to determine the commercial and economic practicability of their utilization in producing fuel oil, gasoline substitutes, ammonia, tar, solid fuels, gas for power and other purposes. It has been referred to the House Committee on Mines and Mining.

H. J. Res. 291, introduced by Mr. Mays, provides for the amendment of the act of October 5, 1917, suspending the requirements of annual assessment work upon mining claims during the years 1917 and 1918, so as to make the provisions of that law applicable to oil-shale placer locations or claims.

H. Res. 348, introduced by Mr. Lobeck, authorizes and directs the Federal Trade Commission to investigate and report to the House of Representatives at the earliest possible moment the cost of producing and refining petroleum procured from the chief producing areas and petroleum fields in the United States; the cost of marketing the by-products, with particular reference to the commodity known as distillate oil, and the rate of net earnings of the chief producers and refiners of petroleum.

Diversion Orders Revoked

Special orders providing for the diversion of coal to New England, issued during the critical period of last winter, have been revoked by United States Fuel Administrator Garfield. These orders were no longer necessary, in view of the inauguration of the zone system, regulating the production and transportation of coal and of the adoption of the system of district representatives of the Fuel Administration facilitating the filling of emergency and other essential requirements for bituminous coal from the different producing fields.

Provision for supplying coal to New England has been made in the zone system recently put into effect by the Fuel and Railroad administrations. One of the orders issued last winter provided for the diversion of 500 cars of bituminous coal daily which was consigned to James J. Storrow, Federal Fuel Administrator for New England, with authority to him to place it where most needed.

CRUDE OIL PRICE NOT TO INCREASE

Requa, in Letter to Bedford, Says Production Is Being Withheld, Awaiting Better Market.

The United States Fuel Administration has made public the following letter from Director M. L. Requa, of the Oil Division, to A. C. Bedford, chairman of the Petroleum War Service Committee:

"I have been informed that in certain localities there is a tendency on the part of oil producers to withhold production in anticipation of increased prices, either in the form of increase in the posted price or in the amount of bonus paid.

"I cannot too strongly emphasize the statement that the Government will not at this time view with approval any further advance in the price of crude oil. Because of the war and the demands that are being made for various essential products, it is obvious that the law of supply and demand has broken down.

"In many lines bidding up the price will not produce a single additional pound of material. Such price advances cannot be permitted by the Government if we are to eliminate profiteering and maintain fair and reasonable prices.

"Will you therefore make it plain to the producers of oil that the Oil Division believes there is no justification for an advance in the price of crude oil at this time, and will expect the industry to cooperate with the Oil Division in an endeavor to maintain existing prices as maximum prices.

"Competition in the form of payment of bonus should also be restrained. I do not mean by this that varying prices should not be paid for oils of varying quality, but these differentials, once established, should not be further advanced.

"I shall be obliged if you will give full publicity to these views and take the matter up with the Advisory Committee on Production affiliated with your committee for full consideration and report."

Virginia Coke Prices

The maxium price of blast furnace coke made in beehive ovens in Wise and Lee counties, Virginia, is fixed at $7.25 per ton of 2,000 pounds, f. o. b. cars at the ovens, and $8.25 for 72-hour selected foundry coke.

New Illinois Prices

Illinois (Macon county)—Mine run, $2.25; prepared sizes, $2.50; slack or screenings, $1.70.

GOVERNOR UTAH CHAPTER AMERICAN CONGRESS ELECTED

Imer Pett, general manager of the Bingham Mines Company, operating properties at Bingham and Eureka, Utah, was unanimously elected Governor of the Utah Chapter, American Mining Congress, May 1, succeeding A. B. Apperson, who had resigned on account of leaving the state. Vacancies in the board of directors of the chapter were filled at the same meeting by the election of Moroni Heiner, vice-president of the United States Fuel Company; J. B. Whitehill, of the International Smelting Company; H. M. Hartmann, general manager of the Ophir Hill Consolidated Mining Company, and A. C. Ellis, Jr., mining attorney, of Salt Lake City.

Mr. Pett has been a director and one of the most active members of the Utah Chapter since its organization. He is a native of Utah, and has a most interesting record as a mine operator. He was made general manager of the Bingham Mines properties about ten years ago. At the time he assumed his duties the company had debts of about $1,750,000. Under Mr. Pett's management these debts have been wiped out and the company's properties brought into the dividend class, with aggregate dividends to date of $1,214,890.

May Curtail Fuel for Yachts.

The United States Fuel Administration has under consideration the issuance of an order prohibiting the use of coal and fuel oil by private yachts during the present war emergency. The words "private yacht" used in this connection mean any vessel operated not for profit.

For some months the conservation division of the Fuel Administration has been investigating the conditions under which private yachts are operated in American waters, the number in commission, the number of men employed, and the average coal and oil consumption. Incomplete figures now in hand show an average in commission for the last three years of 282 private yachts driven by steam and more than 1,000 driven by gasoline.

The total fuel used in these vessels has been deemed worthy of consideration at a time when a shortage of fuel is inevitable. The elimination of these craft would also release a considerable number of men for work in the war industries.

The statistics gathered by the conservation division show that hundreds of vessels formerly operated as private yachts in this country have been turned over to the Government for use in the war.

PLATE AND SHEET ZINC PRICES FOR NEW QUARTER

The President has approved an agreement made between the producers of sheet and plate zinc and the Price-Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the maximum base price of 14 cents per pound f. o. b. plant for plate zinc, and 15 cents per pound f. o. b. plant for sheet zinc, subject to the usual trade discounts and extras or differentials that were in effect February 13, 1918, be continued until September 1, 1918. Sheet zinc shall be considered as including all gauges of one-eighth inch thickness and less, and plate zinc as including all gauges thicker.

The conditions are, as formerly: First, that the producers of plate and sheet zinc will not reduce the wages now being paid; second, they will sell to the Allies, to the public, and to the Government at the same price; third, that they will take the necessary measures, under the direction of the War Industries Board, for the distribution of plate and sheet zinc to prevent it from falling into the hands of speculators who might increase the price to the public; and fourth, that they pledge themselves to exert every effort necessary to keep up the production of plate and sheet zinc so as to insure an adequate supply so long as the war lasts.

C. P. WHITE TO HANDLE LAKE COAL SHIPMENTS

The appointment of C. P. White as manager of Lake and Canadian coal distribution has been announced by the United States Fuel Administration.

Mr. White formerly was connected with the coal department of the Wheeling & Lake Erie Railroad. Afterwards he was located at Duluth, Minn., and Superior, Wis., in charge of Lake Superior coal dock properties. He spent twenty years in that work, and then became general manager of the Pittsburgh Coal Company's operations north and west of Chicago. Later he served as vice-president of the Carnegie Dock and Fuel Company, with headquarters at Minneapolis.

Recently Mr. White has been vice-president and general manager of the Clarkson Coal Mining Company, with operations in eastern Ohio.

New Kentucky Prices

Kentucky (Blue Gem coal, mined in Knox and Whitley counties by the operators who are members of the Tri-County Blue Gem Coal Operators' Association)—Mine run, $3.55; prepared sizes, $3.80; slack or screenings, $2.40.

HIGH RATE OF PRODUCTION OF COAL MUST BE EXCEEDED

The National Coal Association issued the following statement recently:

"While returns to the United States Geological Survey show an increased production in bituminous coal of 5.7 per cent for the week ended April 27, due to an increase in car supply at the mines, it should be borne in mind that continued increase during the entire period of the year to come will have to be maintained if the nation's fuel requirements are to be met.

"The week's production reached a new high record, but this record will have to be exceeded in the weeks to come to avert a serious fuel shortage next fall and winter. Action by the railroads in heeding the call for cars by the mines is a step in the right direction, but it is only a step. The railroads have demonstrated that they can furnish more cars for the transportation of bituminous coal than they have been furnishing, as evidenced by the record week's production. Now that the railroads have demonstrated their ability to increase the car supply to the mines, it is clearly up to them to continue furnishing the increased supply. There should be no turning back.

"Notwithstanding the increase in production during this one week, there is still widespread loss of output due to shortage of cars in the chief producing fields of the country. Official returns to the Government for the week ended April 20 show the last production due to inadequate car supply in Illinois fields to have been 322,000 tons; in Indiana, 112,000 tons; in Ohio, 536,000 tons; in Pennsylvania, 480,000 tons; in West Virginia, 480,000 tons, and in Kentucky and Tennessee, approximately 80,000 tons. Producing sections in the East capable of an output of 11,170,000 tons lost 2,038,500 tons during the week of April 20 from car shortage alone.

New Rhode Island Administrator

United States Fuel Administrator Garfield has announced the appointment, with the approval of the President, of Malcolm G. Chace, of Boston and Providence, as Fuel Administrator for Rhode Island, vice George H. Holmes, who resigned for business reasons.

Mr. Chace is a son of the chancellor of Brown University. He is a resident of Boston, but his business firm, Chace & Harriman, the promotion and conduct of public utilities, has its headquarters at Providence, R. I.

Harris & Ewing Photo.

SUPERINTENDENTS OF EXPERIMENT STATIONS

Sitting (left to right)—Chas. E. Van Barneveld, Tucson, Ariz.; Thomas Varley, Seattle, Wash.; Van H. Manning, director; D. A. Lyon, supervisor of stations; A. E. Wells, Salt Lake City. Standing (left to right)—R. B. Moore, Golden, Colo.; R. T. Stull, Columbus, Ohio; E. A. Holbrook, Urbana, Ill.; L. H. Deischak, Berkeley, Calif.; Edmund Newton, Minneapolis, Minn.; F. G. Moses (acting superintendent), Salt Lake City; J. O. Lewis, Bartlesville, Okla.

SUPERINTENDENTS OF BUREAU OF MINES STATIONS MEET HERE

Superintendents of the experiment stations of the Bureau of Mines met in Washington last month to discuss their work with Director Manning. The following program was carried out:

Monday, May 13.—Address by Director; discussion of work of Berkeley Station, L. H. Duschak, superintendent; discussion of work of Bartlesville Station, J. O. Lewis, superintendent; discussion of work of Columbus Station, R. T. Stull, superintendent; discussion of work of Golden Station, R. B. Moore, superintendent.

Tuesday, May 14.—Discussion of work of Minneapolis Station, E. Newton superintendent; discussion of work of Salt Lake City Station, A. E. Wells, superintendent, F. G. Moses, acting superintendent; discussion of work of Seattle Station, T. Varley, superintendent; discussion of work of Tucson Station, C. van Barneveld, superintendent.

Wednesday, May 15.—Discussion of work of Urbana Station, E. A. Holbrook; discussion of coordination of work; discussion of extent to which cooperation may be carried on with outside individuals and companies; discussion of indexing technical literature, led by Varley.

Thursday, May 16.—Work of miscroscopic laboratory at Salt Lake City, F. B. Laney; explanation of rules and regulations governing field stations—chief clerk; bureau publications, Mr. Sanford; discussion of bureau's publicity work, Mr. Cochran.

NEW ENGLAND MUST USE ITS OWN COKE SUPPLY

An order has been issued by the United States Fuel Administration discontinuing the shipment of coke manufactured in the New England states to points outside thereof, except to Albany, Cohoes, Green Island and Troy, N. Y. At the same time the order prohibits the shipment into the New England states of coke, except petroleum coke and crushed coke for domestic purposes, from the states of Maryland, New Jersey, New York, Pennsylvania and West Virginia.

The Fuel Administration has ascertained that sufficient coke is manufactured in the New England states to supply all local foundry coke demands and to provide some tonnage for domestic use and water-gas plants.

The purpose of the order is to eliminate the long haul of coke to New England from points outside and to reduce as much as possible the fuel shortage in that territory.

The order became effective May 15.

NON-ESSENTIALS EMPLOY 10,000,000, SAYS NOYES

Fuel Administration Official Declares $20,000,000,000 Is Invested in the Non-War Industries of the United States.

Summary of address of P. B. Noyes, director, Bureau of Conservation, United States Fuel Administration, before the International Railway Fuel Association, Hotel Sherman, Chicago, Friday, May 24, 1918.

"That undercurrent of anxiety regarding the great struggle upon which all our future happiness depends has swept aside everything petty and personal, and has focused the real interest of every man present upon this question, 'What can I do to help win the war?'

"It is because the men gathered here can do more to help the Fuel Administration serve the war than any similar group in the country that Mr. Garfield has taken such a keen interest in this convention.

"Fix your minds on what you know of the burdened condition of the leading railways three years ago. Add to this the tremendous burden of war supplies, troop transportation, material for ship-building, and food for our allies, and then picture to yourself what it means to those same railways with facilities little, if any, greater than three years ago to provide transportation for 200,000,000 additional tons of coal.

"Conceive of this increase as sixteen solid trains of gondola cars, filling sixteen tracks from New York to San Francisco—a veritable freight yard filled with coal cars extending the breadth of this continent. And this represents only the increase of coal transportation demanded of the railroads. All of those 4,000,000 cars must be switched in and out and carried hundreds of miles by our already burdened transportation system.

"The coal business is in physical proportions so far beyond any other business in the country that emergency remedies which can be successfully applied to any of the others will hardly make a dent in the coal shortage.

"At least $20,000,000,000 of capital is invested in legitimate manufacturing enterprises producing goods not strictly needed for the war. Ten million men support their families from the work they do in these factories.

"Last fall lists were repeatedly suggested by responsible people for 'cutting off' as 'nonessentials.' It only required a cursory examination of these lists to find that cutting off their fuel supply meant bankruptcy on a scale which would precipitate the greatest panic ever seen in the United States and the sudden and forcible unemployment of at least 5,000,000 men.

"It was thought by some a sufficient answer to suggest the need of men for war work. A large proportion of the employes in every factory are not migratory. They own homes. They starve there rather than move. No power on earth could arrange new places for 5,000,000 men in time to prevent not only hardship and misery but possibly riots and bloodshed.

"All responsible agents of the Government now realize that keeping labor reasonably employed and only taking it away from nonwar work as fast as it can be employed on war work is nearly as important for success in this war as the manufacture of munitions and ships.

"The fuel expense in most highly organized industries is little over 1 per cent of the total cost of the goods. On the other hand, this 1 per cent is absolutely vital. Without it, the factory closes. Every ton of coal saved for our factories means the employment or nonemployment of 100 men. Beyond the desperate need of coal for war purposes lies an equally desperate need of coal to preserve the lives and happiness of the population. The threatened shortage of coal can easily mean unemployment and financial ruin.

"Those of you here who produce coal should realize that every extra ton you take out of the mine is likely to keep 100 extra workmen from idleness, and you who are responsible for consuming the coal can enjoy the thought when faithfulness and care have saved a ton, that you have thereby made 100 families happy.

"If you remember that railway locomotives burn more than a quarter of all the coal mined in the country, you will not accuse me of exaggeration when I say that it is in your power and in the power of the railway firemen and the organization with which he works to save enough coal to turn threatened national disaster into national prosperity.

"The new department of the Railway Administration, under the leadership of Mr. McAuliffe, will make an intensive study of this subject and a campaign of information. I am especially interested myself today in getting through to you the full significance in this crisis of every man's 'doing his best.'

"Few men ever reach 100 per cent of their possible efficiency. Most of us never reach 50 per cent. The only man I can think of who is up to 100 per cent of his possible efficiency is the drowning man; his 'background' is sufficient to bring out all there is in him.

"The background of this terrible war is raising the efficiency of every man and woman in the United States. It is raising it in proportion to the desperate character of that background. The more the meaning of the war has come home to us, the more we have approached our possible efficiency. This is a real force, and should be applied directly to fuel economy.

"There has been much discussion as to what will 'win the war.' Not everyone, I fear, has faced the terrible alternative of what it would mean to lose the war. Let me tell you what I think it would mean.

"Only once in civilized times has a single race dominated the world; only once has a swollen tyranny proven so powerful that no human power could oppose it. The Roman Empire was such a world dominion —brutal, resistless.

"The Roman Empire could not be destroyed from without; it died from internal decay. The Roman Empire was 1,000 years decaying—a thousand years known in history as the 'Dark Ages.' For 1,000 years civilization and all that it stands for went backward into darkness. All men became either cowards or swashbucklers. Civilization, as we understand it, vanished.

"Here is the black threat of the present struggle as I see it: Another brutal autocracy threatens to slip the leash and get beyond the power of civilization's curb; another world dominion; another Roman Empire. And it is not of the tyranny, the slavery and misery of that world empire in its heyday that I am thinking. It is of the ages of decay. For 1,000 years, perhaps 5,000, the world will struggle in darkness while the German Empire is decaying. In my mind, we are not struggling for the happiness of our children or grandchildren; it is for the fifty generations, which, if we fail to win this war, may flounder in the black mire of a powerful but decaying German Empire.

"It is with such a background that I appeal to you to make the efficiency of your work 100 per cent perfect. I appeal to you to start today the real campaign—the most practical campaign the every-man-do-the-best-he-knows-how campaign. Miraculous results will follow."

Return to Tepetate Wells

Many oil well workmen in the Tepetate district, a portion of the Tampico oil fields, recently left their work and some of them returned to the United States. According to the Tampico Tribune of May 4, operations have been resumed, to a large extent, and the men are returning to their posts. The Tribune adds:

"As an episode of importance to the Mexican fields, the incident could hardly be said to figure."

OIL FOR ROAD IMPROVEMENT TO BE LIMITED GREATLY

Petroleum, asphalt, or tar products wanted for the construction, maintenance, or reconstruction of roads will be delivered only after approval of the application by a committee representing the United States Fuel Administration and the Office of Public Roads of the Department of Agriculture.

State highway departments, to which notices of the restrictions have been sent, are required to pass upon all applications for highway work in their territories involving the use of these materials.

Upwards of a billion dollars is the valuation placed by officials of the Office of Public Roads upon bituminous macadam roads in this country requiring for their maintenance asphalt, road binders, road oils, tar binders, or dressings. The plan to issue permits is designed to prevent further deterioration of these roads, and at the same time endeavor to satisfy fully the fuel oil requirements of the Army and Navy, the essential war industries, and the Allies.

The United States is now being drawn upon to a constantly increasing extent for petroleum products, especially fuel oil, according to officials in the Oil Division of the Fuel Administration. The supply of bituminous products is so limited that it is requested that all new road construction involving these materials be deferred this year, except in cases where such work is necessary toward the winning of the war. Preference will be given to materials wanted for maintenance and repair work.

North Dakota Prices

Further classification and prices of bituminous coal mined in North Dakota is announced by the Fuel Administration.

For all coal mined south of the twelfth standard parallel—Run of mine, $2.25; prepared sizes, $2.50; 6-inch steam lump, $2; slack or screenings, $1.25.

All coal mined north of the twelfth standard parallel—Run of mine, $2.70; prepared sizes, $3; 6-inch steam lump, $2.50; slack or screenings, $1.

These prices do not include the 45-cent allowance for wage increase under the President's order of October 27, 1917.

New Indiana Prices.

Indiana—Mine run, $2; prepared sizes, $2.20; slack or screenings, $1.70. Brazil block—Mine run, $2.95; prepared sizes, $3.25; slack or screenings, $1.70. The former prices were $1.95, $2.20, and $1.70, respectively, on Indiana grades and $2.95 for prepared sizes and $1.70 for slack or screenings on Brazil block.

D. W. BRUNTON HEADS WAR DEPARTMENT BOARD

In order to secure prompt and thorough investigation of inventions submitted to the War Department an "Inventions Section" has been created as an agency within the General Staff. All inventions of a mechanical, electrical or chemical nature submitted to the War Department for inspection, test or sale are now considered by this section.

Inventions may be sent by mail or may be submitted in person, accompanied by written descriptions or drawings. They go first to an examining board having technical knowledge of the classes of inventions they handle, whose investigations determine whether the inventions have merit. Those with merit are referred to the Advisory Board, which determines in each case whether it should be put in the hands of some of the numerous testing and developing agencies, or if it should go to one of the staff or supply departments for test and consideration of its adoption, and final acquirement of title if such action is desirable. Composing the Advisory Board at present are the following:

D. W. Brunton, member Naval Consulting Board and chairman War Committee of Technical Societies; Dr. Graham Edgar, member National Research Council; Col. James W. Furlow, Quartermaster Department, Chief, Motors Division; Col. J. A. Hornsby, M. C., Chief, Hospital Division, Surgeon General's Office; Lieut. Col. Morgan L. Brett, Ordnance Department, Engineering Branch; Lieut. Col. Robt. A. Millikan, S. C., Chief, Science and Research Division; Lieut. Col. N. H. Slaughter, S. C., Chief, Radio Development Section; Major Jos. A. Mauborgne, S. C., Chief, Electrical Engineering Section.

When completed the board will have twelve to fifteen members, to cover fully all of the various technical problems which may come before it.

In testing and developing inventions and in considering problems presented by staff departments, the Advisory Board works in connection with a number of agencies. Among them are the following:

Research Council; Bureau of Standards; War Committee of National Technical Societies (this committee consists of two members detailed from each of the ten important technical societies in the U. S.); laboratories and shops of the Staff and Supply Departments of the Army; Patent Office; Aircraft Production Board; all Army service schools; C. L. Norton, Massachusetts Institute of Technology, Cambridge, Mass.; Dr. Chas. P. Steinmetz, General Electric Co., Schenectady, N. Y.; A. H. Beyer, chairman, Committee on Testing Laboratory, Columbia University, Broadway and 117th St., New York City; R. R. Abbott, Metallurgist, Peerless Motor Car Company, Cleveland, Ohio; Dr. John A. Mathews, president, Halcomb Steel Company, Syracuse, N. Y.; Knox Taylor, president, Taylor-Wharton Iron and Steel Co., High Bridge, N. J.; Howard D. Colman, Baber-Colman Company, Rockford, Ill.; Preston S. Miller, Electrical Testing Laboratories, 80th St. and East End Ave., New York City; Herbert Fisher Moore, University of Illinois, Urbana, Ill.; L. F. Miller, Metallurgist, Mitchell Moore Company, 1832 Asylum Ave., Racine, Wis.; E. J. Okey, The Timken Roller Bearing Co., Canton, Ohio; Dr. Alec. Hrdlicka, curator, Division of Physical Anthropology, United States National Museum, Washington, D. C.

Any person desiring to submit an invention for consideration, test, sale or development, should do so by letter, giving in order the following information: Name and object of the invention; any claim for superiority or novelty; any results obtained by actual experiment; whether the invention is patented; whether remuneration is expected; whether the invention has been before any other agency; whether the writer is owner or agent; the number of enclosures with the letter. A written description and sketches or drawings of sufficient detail to afford a full understanding of the cases should also be submitted. Should the invention be an explosive or other chemical combination, the ingredients and processes of mixture should be stated.

The inventions section will not bear the expense of preparation of drawings and descriptions, nor advance funds for personal or traveling expenses of inventors.

Any matter submitted will be treated as confidential. The inventor will be notified of each step taken during the investigation of his invention.

LAUCK NAMED SECRETARY OF WAR LABOR BOARD

W. Jett Lauck has been appointed Secretary to the National War Labor Board. Simultaneous with his appointment, Mr. Lauck announced his resignation as assistant chief of the Industrial Service Section of the Signal Corps. He was previously statistician to the Wage Adjustment Board of the Emergency Fleet Corporation.

Since the United States entered the war Mr. Lauck has prepared for the Railway Wage Board two studies of economic conditions in war time entitled "Wages and the War" and "The Cost of Living and the War," and has also prepared a history of British industrial experience during the war. This latter was published as a Senate Document.

In recent years Mr. Lauck has been attached to the Immigration Commission as executive in charge of industrial investigations and to the Tariff Commission appointed by President Taft as chief examiner, in which capacity he made studies of production costs here and abroad. He was also consulting statistician for the U. S. Commission on Industrial Relations, and has been associated with the Railroad Brotherhoods as expert on railway economics.

MINING SWATTED TOO OFTEN, SAYS J. T. BURNS

Western Secretary Tells of Plans of American Mining Congress in Address at Safety Conference

An extract from an address made by John T. Burns to the Tri-State Mines Safety and Sanitation Association at Picher, Okla., May 8, is as follows:

"My object in meeting with you today is to discuss with you the value of organization for the protection of your commercial and political rights and to offer my services as an officer of the American Mining Congress in completing such organization as you may decide upon.

"The American Mining Congress is probably known to you all as the organization which has worked side by side with you in the recently inaugurated movement to secure justice at the hands of those in authority in the administration of the so-called Excess War Profits Tax Law. That fight has but begun and we mining men must stand solidly together for perhaps another year before the problems can he worked out. Your Mr. Thompson, who represents your district in this fight, is one of our general committee on the tax law and has a desk in the headquarters of the Mining Congress. He will tell you, as will several of your committeemen who are in this meeting, that the Mining Congress is your first line of defense in this and other matters and so—though I knew that you were busy today I took the opportunity to meet with you and to invite you to assist us in doing a greater work for you.

"This is the psychological hour for unifying our forces and synchronizing the expenditure of energy to prevent wasted labor and confusion through duplication or multiplication of organizations.

"The lessons of the past year have been rather severe and costly but if we have learned them well and defend the mining industry through entrenchment behind well fortified organization and to utilize intelligent strategy in the future, perhaps the cost has not been in vain or unprofitable.

"It is time that the wasting industries of the United States gave more attention to the preservation of their rights. The pleasant little game of swatting the mining, oil, gas, and coal man has been carried too far in both state legislatures and in Congress.

"I don't believe that any of you gentlemen desire to evade your duty to the state and nation but you have millions of dollars tied up in business enterprises and you are turning out basic wealth for the state and sinews of war for the nation, and if legislation for the regulation of your business is to be considered and enacted into laws it is only just that you should be considered and that laws should be based upon reasonable business requirements rather than upon popular political demands. Most of the laws enacted, both state and national, are for the regulation of business and so long as you business men remain silent on the subject you will be getting just that sort of laws.

"So long as you neglect to organize and maintain active defense forces just so long will you be figuring our your losses by the graphite method just as you are doing on the Excess Tax Law, which isn't an Excess Tax but an Excessive Tax Law.

"For many years the Mining Congress has been endeavoring to get all mining interests in America united for a common cause, but it took the oppressive conditions of the war situation to force the issue and today we have seventeen organizations in fourteen states federated and at work. I'm here to ask you to come into this federation. Several states not yet organized have asked to come in and committees are at work in Montana, California, and Nevada arranging to come in as chapters of the American Mining Congress. That will leave Texas, South Dakota, and Oregon unorganized this year. In the East the coal and iron men are coming in state by state. A chapter for West Virginia was organized recently, making four coal states already enrolled, and scattering members are getting together in groups everywhere.

"Colorado has just completed a chapter with large membership. There are metal, coal, and oil sections each taking part in the state organization but each authorized under the state constitution to maintain its specialized work with a special executive committee and a secretary. Utah has the same form of organization while Arizona enlists operators only. Wyoming is composed largely of oil men while California will have oil and metal chapters.

"Eventually we plan to maintain permanently in Washington a cabinet of highly specilized men whose time will be given to each special phase of mining, and we hope by carefully worked out distribution of expense and division of labor to secure maximum protection. An illustration of the necessity for such national machinery was given during the winter when every state producing oil, metals, and coal sent committees of business men to protest against the tax law, to ask for a raise in silver prices and to demand a just leasing bill. Had there been no method in coordinating the work of this great committee from widely separated points and distinctly separated industries much of the energy would have been thrown away. Congress was too busy to listen to groups of men aimlessly milling around the capital and making contradictory demands. The Mining Congress which had been responsible for the committees from many states helped to organize the work of the delegates and to distribute the energy to best advantage. The net results thus far have been the establishment of one dollar silver; an agreement that 80 per cent of our requests for relief on the Excess Profits Tax will be covered under special rulings—with an amendment later in this session and—we hope—a new bill to follow at once, while the leasing legislation, though not promising today, has opened to the Government a new vista on western affairs through which legislation on development matters will long receive more considerate attention.

"I believe that the best results can be obtained by the zinc producers working through state chapters, cooperating with lead producers and other similar metals in maintaining at Washington an expert assistant to Secretary Callbreath of the Mining Congress, one capable of handling legislative and special problems pertaining to baser metals and keeping in close touch with all other mining interests. This plan brings the influence of all branches of the industry to bear upon special problems quickly and efficiently and, when backed by the proposed Bureau of Economics to be established by the American Mining Congress, will, for the first time in the history of your industry try to establish your importance and keep you in sympathetic contact with the national legislative body."

COAL PRODUCTION NEARS THE 12,000,000 TON MARK

Bituminous coal production for the week ended May 18 is estimated at 11,732,000 net tons, compared with 11,825,000 for the week ended May 11. The daily average for the week was 1,955,000 tons, compared with 1,971,000 for the week preceding, according to reports issued by the United States Geological Survey.

Anthracite shipments were reported as 41,011 cars during the week of the 18th, an increase over the previous week of 2,244 cars, or 6 per cent.

Beehive coke production for the week ended May 18 is estimated at 678,000 net tons, an increase over the preceding week of 10,000 net tons or 1.5 per cent.

The reports made up by the U. S. Fuel Administration showing the working conditions at the mines during the week of May 11 are especially interesting in that they reflect the operations of the mines for the weekly period showing the largest production since the organization of the U. S. Fuel Administration.

The total losses from all causes during the week is recorded as 23.4 per cent. The losses were reported as follows: car shortage, 11.2; labor shortage and strikes, 5.4; mine disability, 3.6; no market, 1.0; all other causes, 2.2. The percentage of production to total capacity for the week ended May 11 was 76.6 per cent, the highest point attained this year.

As in previous statements the greatest loss shown on account of car shortage occurred in the bituminous fields having capacity for the greatest production. The greatest loss is recorded in the Fairmont field, of West Virginia, the percentage being 38.2. Other significant losses on this account are shown in northern and central Ohio, 24.6; Somerset County, Pennsylvania, 37.7; Illinois, 12.5; Indiana, 14.0; Southern Ohio, 13.9; New River and Winding Gulf, 13.9; Hazard, Kentucky, 17.2; Northeastern Kentucky, 16.2; Western Kentucky, 18.4.

During this banner week of bituminous coal production the total output of the mines was 11,825,000 net tons. Even if this rate of production should be maintained the total output would fall short of the estimated requirements for the year.

Wherever improved output is shown for the week the gain is attributed to improved transportation and increased car supply with the exception of Southern Ohio, where the percentage of car shortage rose from 7.1 per cent for the preceding week to 13.9 for the week of May 11. Production was maintained by reason of improved labor conditions which offset the increased losses on account of car shortage.

Anthracite Shipments in April

The shipments of anthracite in April, 1918, as reported to the Anthracite Bureau of Information, amounted to 6,368,372 tons, an increase of 776,074 tons, or almost 14 per cent over those of the corresponding month of last year. Despite several record-breaking months during the coal year ended March 31 and the remarkable showing for the entire year, the April, 1918, shipments are close to the high monthly average maintained during the year.

The shipments by carrier companies in April, 1917 and 1918, were as follows:

	April, 1918.	*April, 1917.*
P. & R. R. W.	1,233,512	1,004,028
L. V. R. R.	1,175,027	988,873
C. R. R. of N. J.	649,621	626,501
D. L. & W. R. R.	1,008,018	893,458
D. & H. Co.	771,553	639,495
Pa. R. R.	448,374	433,314
Erie R. R.	695,186	664,609
N. Y., O. & W. R. W.	185,650	145,179
L. & N. E. R. R.	322,167	298,220
	6,489,108	5,693,677
	*120,735	*101,378
	6,368,373	5,592,299

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*Deduction: Tonnage reported by both C. R. R. of N. J. and L. & N. E. R. R.

ALUMINUM PRICE FIXED FOR THE NEXT QUARTER

The President has approved an agreement made between the producers of aluminum and the Price-Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the new maximum base price for aluminum, effective June 1, 1918, to September 1, 1918, shall be 33 cents per pound, f. o. b. United States producing plants, for 50 tons and over of ingot of 98 to 99 per cent. Differentials for sheet, rod and wire will be increased by approximately 12½ per cent; differentials for quantity and grade and differentials for alloys will remain as heretofore, *i. e.*, those approved by the Price-Fixing Committee of the War Industries Board on March 3, 1918. Copies of the new list of differentials may be obtained upon application to the Non-Ferrous Metals Section of the War Industries Board.

The new prices will be effective on deliveries made during the period from June 1, 1918, to September 1, 1918, on contracts made during said period; and, furthermore, the new prices will be effective on deliveries made during said period on existing contracts which specify that the price shall be that in force at the time of delivery. Deliveries made during the period June 1, 1918, to September 1, 1918, on other contracts shall be at the price stated in such contracts, except that on existing "direct and indirect government contracts" containing a provision that refund is to be made of the difference between the price stated in the contract and the "government fixed price, if, as and when made," such difference shall be refunded on deliveries made during the period from June 1, 1918, to September 1, 1918, on presentation of the proper proof that the purchasing government gets the benefit of the refund.

The conditions are as formerly: First, the producers of aluminum will not reduce the wages now being paid; second, aluminum shall be sold to the United States Government, to the public in the United States, and to the allied governments at the same maximum base price; third, they will take the necessary measures, under the direction of the War Industries Board, for the distribution of aluminum to prevent it from falling into the hands of speculators who might increase the price to the public; and, fourth, they will pledge themselves to exert every effort necessary to keep up the production of aluminum so as to insure an adequate supply so long as the war lasts.

NEW MAP SHOWS ORE DEPOSITS IN INYO COUNTY

State Mineralogist Fletcher Hamilton announces the publication by the California Mining Bureau of a topographical and geological map of Inyo county which shows in detail the location of ore deposits, geological structure of the county, towns, postoffices, springs, wells, railroads, wagon roads, and trails.

The section of the state under consideration is one of the most interesting geographically, as well as from a mining standpoint, of any similar area in the West. Inyo county contains 10,019 square miles, and the estimated population is 7,500—less than one inhabitant to a square mile of territory—it is noted because of the fact that within its borders are located both the highest and the lowest points in the United States. The former, Mt. Whitney, has an elevation of 14,501 feet above sea level, and almost within sight of this mountain is a point in Death Valley which is 280 feet below sea level

This sparsely settled and rugged district produced last year mineral substances to the value of approximately $5,000,000 A large proportion of the borax production of the entire United States comes from Inyo county; its mountains produce gold, silver, copper, lead, zinc, and other metals, and from its old lake beds are derived soda, salt, niter, and similar substances.

The map mentioned has been lithographed in seventeen colors, and is offered for sale at the price of 60 cents, which merely covers the cost of printing. A report describing in detail the mineral resources of this county has also been recently published by the bureau, and both map and report may be obtained for $1.25. Anyone interested in obtaining a copy of this map or report will receive immediate attention by communicating with the State Minerologist, Ferry Building, San Francisco, or by addressing the State Mining Bureau at its following branch offices: 512 Union League Building, Los Angeles; Santa Paula, Santa Maria, Taft, Bakersfield, and Coalinga.

Wiggin Resigns

Albert H. Wiggin, Federal Fuel Administrator for New York State, has resigned because of the duties which will fall upon him as chairman of the Clearing House Committee next year. He feels it would be impossible for him to continue to carry the heavy responsibility of the New York Fuel Administration. He retains his place as a member of the Advisory Committee.

New Colorado Prices

Colorado (coal mined by the Williamsburg Slope Coal Company, at Florence, Fremont county) Mine run, $2.25; prepared sizes, $4.25; slack or screenings, $1.25.

CAN MAKE CRUCIBLES OF ALABAMA GRAPHITE

Alabama Operator Explains Domestic Graphite Situation and Believes United States is Independent of Foreign Supplies

By A. B. Conklin, Secretary Graphite Producers Association of Alabama

The development of the graphite resources of Alabama have not been proportionate to the state's other natural resources, especially of the iron and steel. But the presence of graphite, in milling quantities, has been known for nearly half a century. It has been milled in a limited way for nearly twenty-five years, and as with apparent magic the needs of this valuable war mineral have stimulated a development of this resource, and the aptitude of our people, in quickly responding to necessities, has been demonstrated in this, as in so many other ways, since the beginning of the European war.

With a domestice production, for the past seven years, running from 8 to 19 per cent of our consumption, the importance of encouraging an increased output is unquestionable. This point was forcefully illustrated in its market condition following the opening of hostilities in Europe, and up until the middle of last year, during which time, in order to prevent any of its product reaching Germany, conditional restrictions were placed upon the importation of graphite by England and France. Great anxiety was evidenced by our consumers in their eagerness to secure the domestic product during this time. They were active bidders for every available pound of Alabama graphite at constantly advancing prices, until the foreign restrictions on imports were removed about the middle of the year, following the declaration of war by our country. If a limited restriction on imports of this mineral during war times would cause so much anxiety, what would be the condition if an unfavorable turn in the fortunes of war prevented entirely all importations? With the increased capacities it would be impossible to provide scarcely more than one-third of the average annual consumption during the past seven years, and if the requirements of the war needs should stimulate this business, as it would appear reasonable to expect, we would be placed in a serious dilemma.

ALABAMA'S EFFORT TO MAKE US INDEPENDENT IN GRAPHITE

With an investment of possibly $200,000.00 at the beginning of the war, new developments have followed in rapid succession, until now there is invested approximately $3,500,000.00 in the graphite business in Alabama. This has carried with it large expenditures for experimenting on milling methods that would meet the consumers' requirements as to quality, and also afford a production, sufficient in quantity to justify the investments.

Decided progress had been made in each of these directions, but after the first year's development it became apparent that a cooperative effort would advance more rapidly the improved operating facilities necessary for quantity and quality production.

Prompted by these needs the Graphite Producers Association of Alabama was organized last fall. It now has members representing nearly all the producing mills in the state, and new applications are being received from companies, who have mills under process of construction, having been attracted by advantages the association affords, such as exchanging ideas on milling methods, uniform and approved sampling and analytical methods, and shipping troubles. This latter factor has received a most satisfactory solution through the efforts of the association with government departments, in raising an embargo on graphite shipments on February 11 that had been periodically interfering with shipments from late in 1916, and had absolutely prevented all shipments since last December.

For the purpose of more thoroughly establishing the Alabama product as to standard requirements, the association has recently approved measures providing for an authorized chemist to draw samples from all bags to be shipped, and to classify them in small groups, with a separate analysis on each group. This method furnishes the purchaser with a check on the determinations usually taken by the producer.

One of the largest crucible makers is credited with the following statement: A good crucible can be made with all Alabama graphite, and they would be willing to so modify their mixture as to adopt its use exclusively if a sufficient quantity of their desired quality, could be assured. The achievement of such a possibility would be one of great importance now, first by releasing of shipping required for bringing this foreign product about 12,000 miles to us, and second by making us independent, in this war mineral, of every country in the world.

Owing to the increased business which will come to the minor assay offices as a result of the Silver Bill, it is expected that Director of the Mint, Ray T. Baker, will shortly recommend the enlargement of the equipment of those offices and an increase in their personnel.

DENVER AND SAN FRANCISCO TO HAVE METALS' HEARINGS

The United States Tariff Commission will hold hearings in San Francisco during the week, June 24 to June 29, inclusive, at the Assembly Room of the Chamber of Commerce, Montgomery and California Streets, to acquire information on the production of antimony, quicksilver and tungsten ores and products. The intent is to bring together the miners and smelters, importers and consumers interested in these metals. It is hoped that the meeting will fairly represent the various interests involved.

An outline of the information it is expected to bring out is as follows:

1. War disturbance—Effect on production, labor, markets, plant expansion, and general conditions of the industry. Comparison of these matters desired between the years 1914 and 1917.

2. What do you anticipate will be the post-war conditions in your industry that concern foreign competition?

What preparations are being made for readjustment to these conditions?

From what countries and upon what particular articles do you expect keenest competition after the close of hostilities?

3. Operation of present tariff schedule prior to outbreak of war and thereafter.

4. New processes at home and abroad, which may affect the economic or competitive position of the American producer, manufacturer, consumer, and laborer.

5. Minimum prices for these ores and metals at which American mining and reduction operations can show a reasonable profit.

6. What increases in cost of materials and wages have occurred in the industry since 1914?

7. Relative foreign and domestic costs of production of metal and products.

8. Imports and exports—Reasons for, character, and volume of, and future outlook.

9. Adequacy of American ore deposits for domestic needs.

Statements are desired of the costs of production, including cost of raw materials and supplies, labor, power, and overhead expense, separately itemized for the fiscal year 1914 and for the last fiscal year; total volume and total value of product for 1914 and for the last fiscal year; quantity and value of imports and exports for a series of years.

The Commission is preparing reports on the metal industries, a portion of one of which is herewith submitted for your criticism. May we ask you to examine it and give us the benefit of any suggestions which may occur to you for its improvement?

The data collected will be at the disposal of Congress and will be serviceable at the close of the war when the business of the country shall be reorganized on a peace basis, and new conditions of foreign competition have to be faced.

A separate hearing on tungsten will be held in Denver, Colo., on Monday, June 17. This meeting will be opened at 10 a. m., in the United States District Court Room at the new Post Office Building, and the proceedings will be of the same general nature as at the San Francisco conference.

The conference in Denver was arranged at the request of James F. Callbreath, the secretary of the American Mining Congress. In that connection Commissioner Costigan wrote Mr. Callbreath as follows:

"With reference to your suggestion that a separate conference on tungsten be held at Denver, for the benefit of the Colorado producers, you will note from enclosed copy of invitation going out today to some 550 tungsten people that we have selected Monday, June 17, for a hearing.

"We look forward to a profitable meeting in Denver, and trust that you will make arrangements for the presentation of views of the Colorado interests, along the lines mentioned at the time of your interview with Messrs. Culbertson, Costigan, and Riddell, at the Tariff Commission offices. The invitation itself contains a list of topics into which inquiry will be directed, and a separate outline, in slightly greater detail, is enclosed also for your use.

"The list of tungsten producers to whom invitation is going is very complete, we believe, and it would be highly desirable for you to suggest and arrange formal speaking representation for your association."

GOVERNMENT TO OPERATE TWO PICRIC ACID PLANTS

Contracts have been completed by the Bureau of Ordnance for the establishment of two large picric acid plants. Sites have been selected at Little Rock, Ark., and Brunswick, Ga., and the construction work will be rushed at once by the contractors. Men and material for the buildings are already on the ground at Little Rock, and it is expected that the plant will be in operation by September.

The Everly M. Davis Chemical Corporation has been awarded the contract for the Little Rock plant, the construction of which will cost approximately $4,000,000.

A larger plant is to be constructed by the Butterworth-Judson Co., of New York City, at Brunswick, at a cost of nearly $7,000,000.

These are the first government controlled picric acid plants to be established in this country. The sites were chosen in the South after a most careful investigation of housing, labor, transportation facilities, and strategical conditions. In choosing the Little Rock location, the Ordnance Bureau was able to take over a number of buildings which will be used as part of the plant.

FRANKFURTER DISCUSSES INDUSTRIAL RELATIONS

Felix Frankfurter, assistant to the Secretary of Labor under the executive order creating the War Labor Administration, and the chairman of the new Policies Board of the War Labor Administration, has issued the following statement:

"Production is vital to the winning of the present battle and for the winning of the war —uninterrupted maximum production. Production means supplies for the fighting forces, and production is wholly dependent on labor. There must be an adequate labor supply wisely distributed to meet the needs of war industries. There must be sound and just conditions under which labor is employed.

"To secure the maximum uninterrupted production requires effective administration of industrial relations. The various labor agencies of the Government must therefore be focused to a single direction. Unification of effort and uniformity of conditions must be secured. The grave abuses of labor turnover, resulting in inefficiency and discontinuity of employment, must be stopped at once and this can only be done by creating stabilizing conditions.

"Responsibility for securing these results has been heretofore vested by the President in Secretary Wilson as Labor Administrator. Secretary Wilson has asked me to assist him in carrying out this task. The assurance of heartiest cooperation has been given by the three great production departments of the Government, the War Department, the Navy Department, and the Fleet Corporation. Steps will at once be taken by the Government as employer, through whatever department it may be operating, toward uniformity of treatment so as to secure stability of conditions, and, therefore, the needed production. I shall have the benefit of the experience and support of the able industrial services of the different departments of the Government, as well as the help that will come through familiarity recently gained abroad with the way England and France deal with similar problems. All are agreed on the end to be obtained—maximum production under the fairest conditions, which alone will assure the quickest winning of the war."

COKE OVEN OPERATORS COME IN FOR PRAISE

There has been greatly improved movement of coke to furnaces and foundries as a result of the combined effort of the United States Fuel Administration, the Railroad Administration and coke oven operators. The more important war industries are better supplied with coke than they have been at any time since last October, said the Fuel Administration, in a communication sent to coke operators in appreciation of their cooperation in bringing about this result.

"But it is not enough to merely maintain the present movement of coke," the statement says. "We must work still harder to take care of constantly increasing demand and to establish conditions which will enable us to avoid in the future any slowing down of war industries."

Continuing, the statement says:

"We all recognize that the most serious difficulty has been lack of transportation facilities. There has been possibly more disposition on the part of some to find fault with the railroads and with railroad men than to cooperate with them in their efforts to remedy conditions. Permanent improvement may be brought about by cooperation, not by fault-finding.

"There have been many serious wastes of transportation facilities, which, if eliminated, would make it possible to materially increase the movement of coke. Much has been done along these lines, but there is still very great room for improvement. Unnecessarily long hauls should be eliminated. Coke operators should endeavor to dispose of their coke in the district to which such coke can be most readily moved. Cross-hauls should be avoided where possible."

CYRUS GARNSEY APPOINTED ASSISTANT FUEL ADMINISTRATOR

Cyrus Garnsey, Jr., has been named Assistant Fuel Administrator. The Assistant Administrator will be in general charge of the administrative work of the Fuel Administration. He will supervise the business office of the administration, legal matters, the fixing of operators', jobbers' and retail prices; conservation, education, and the work of the state administrators.

Cyrus Garnsey, Jr., was born at Seneca Falls, N. Y., April 10, 1861. He went to Kansas City, Mo., in 1880 as private secretary to the general manager of the Kansas Rolling Mill Company. A few years later he became controller of the Kansas City, Fort Scott & Memphis Railroad Company, running from Kansas City to Birmingham, Ala. In 1899 he purchased an interest in and became the executive head of the Galloway Coal Company, of Memphis, operating mines in Alabama, with general offices in Memphis. At the same time he became general manager and one of the proprietors of the Patterson Transfer Company, the largest transfer and warehousing company in the South, located in Memphis. On January 1, 1917, he sold out his entire interest in the coal business and at the same time retired from the active management of the Patterson Transfer Company, although retaining his interest in the latter.

Alaskan Chapter Organized

An Alaskan Chapter of the American Mining Congress was organized at Fairbanks, Alaska, on April 3.

The association started out with great enthusiasm among the men present, and in view of the need and field for an organization in the district, it is expected that the movement will be productive of great benefit.

Mr. John A. Davis, in charge of the Mining Experiment Station of the U. S. Bureau of Mines, was elected governor of the Chapter and E. H. Purdy, secretary.

Minutes of Meeting of Tanana Valley Miners' Association Held at the Mining Experiment Station, Fairbanks, Alaska, Wednesday Evening, April 3, 1918

The meeting was called to order at 8 o'clock p. m. by Acting Chairman John A. Davis.

John A. Davis elected temporary chairman, E. H. Purdy, temporary secretary.

A set of by-laws was presented by the chairman, read by the secretary, and after discussion was adopted as amended.

A 15-minute recess was then declared to give the members present an opportunity to place their names upon the membership roll of the association.

A board of directors, consisting of the following members, was elected to hold office until the next annual meeting of the association: Martin Harrais, John A. Davis, W. T. Burns, J. F. Zimmerman, Sylvester Howell, Albert Johnson, and E. W. Herchberger.

A purse was made to defray the expenses incurred by Mr. J. F. Zimmerman in calling the meeting.

Mr. John Gross, of the Bureau of Mines, gave a short talk on Gold Mining in Nicaragua, with particular reference to the Pispis District, Central America.

Mr. Harrais made a few remarks telling of the influence the American Mining Congress had exerted in securing legislation authorizing the building of the present government railroad in Alaska. The chairman added that he was in receipt of a letter from the Secretary of the American Mining Congress in which he promised the association the original draft of the bill introduced into Congress authorizing the Alaskan railroad, should the organization grow into a "State" chapter.

Motions of thanks were extended the chairman and Mr. Zimmerman by the association on behalf of their efforts in organizing the association.

A motion was made and carried that notices of the meeting be prepared and submitted to the local papers.

The meeting adjourned at 10.45 o'clock p. m., until the evening of the first Wednesday after the first Monday in May. Length of meeting 2 hours and 45 minutes.

Members present: Martin Harrais, August Hess, Peter Steil, John Quenboe, John A. Davis, J. F. Zimmerman, John Gross, E. W. Herchberger, Lars Westenvik, Daniel MacInnes, Ben Thompson, Andrew A. Roth, Charles R. Wackwitz, E. R. Babcock, E. H. Purdy, Andrew Zingg, Geo. Ewers, Albert Johnson.

April 13, 1918.

John A. Davis,
Governor.
E. H. Purdy,
Secretary.

Minutes of Meeting of Board of Directors of the Tanana Valley Miners' Association Held at the Mining Experiment Station, April 4, 1918

The meeting was called to order at 4 o'clock p. m., John A. Davis presiding.

Election of the following officers, in the order named, took place: Governor, John A. Davis; secretary, E. H. Purdy; vice-governors, E. W. Herchberger, Martin Harrais, W. T. Burns; executive committee, John A. Davis, Albert Johnson, J. F. Zimmerman; treasurer, J. F. Zimmerman; committee on membership, the Executive Committee.

Following an informal discussion of papers to he presented at ensuing meetings of the association, and the manner of meeting expenses borne by treasurer, the meeting adjourned at 5.10 o'clock p. m.

Length of meeting: 1 hour and 10 minutes

Members present: John A. Davis, J. F. Zimmerman, Martin Harrais, Albert Johnson, E. W. Herchberger.

April 13, 1918.

John A. Davis,
Governor.
E. H. Purdy,
Secretary.

Amendments to Constitution Adopted at Meeting of Tanana Valley Miners' Association Held April 3, 1918

Article I.—Name.—Tanana Valley Miners' Association.

Article IV, Section 1.—Annual Meeting.—July 3 of each year.

Article V, Section 1.—Officers.—Board of Directors to consist of seven (7) members.

Article VIII, Section 2.—Elections.—Members of Board of Directors to be elected at each annual meeting of the association and to hold office for one year.

Since the enactment into law of the Pittman Silver Bill on April 23, 1918, approximately 42,000,000 silver dollars have been melted into bullion.

PERSONALS

L. A. Friedman, of Lovelock, Nev., was in Washington the early part of May. Mr. Friedman appeared before the Mines and Mining Committee of the Senate on the War Minerals Bill, giving the committee some very important information regarding tungsten production. Mr. Friedman is a Director of The American Mining Congress, and is largely interested in the production of gold, silver and tungsten.

George M. Taylor, president of the Colorado Metal Mining Association and manager of the mechanical department of the Portland Gold Mining Company, of Cripple Creek, Colo., was in Washington during the month.

A. Cressy Morrison, secretary of the National Acetylene Association, is spending much time in Washington.

J. G. Puterbaugh, of McAlester, Okla., has returned to his home, after spending several days in the capital.

A. Scott Thompson, of Miami, Okla., is again in Washington. Mr. Thompson made a hurried trip into Oklahoma, but is here again looking after the interests of the lead and zinc industry of his state.

Joel Hurt, president of the Georgia Iron and Coal Company, of Atlanta, Ga., appeared before the Senate Mines and Mining Committee in interest of the War Minerals Bill.

E. E. Sapp and Mrs. Sapp, of Galena, Kans., spent the greater part of May in Washington, combining a business and pleasure trip.

A. G. Mackenzie, secretary of the Utah Chapter, American Mining Congress, was in Washington to attend the conference of the copper producers.

Philip Wiseman, of Arizona, is at the New Washington Hotel. Mr. Wiseman is president of the United Eastern Mining Company.

J. C. Dick, of Salt Lake City, Utah, has returned home after spending several days in the east.

J. F. Callbreath attended the meeting of the National Coal Association at Philadelphia May 28-29.

Harry L. Day, of Wallace, Idaho, and Mrs. Day are at the New Washington Hotel.

L. R. Salsich, formerly general superintendent of the Coleraine district of the Oliver Iron Mining Company, has been transferred to Hibbing, Minn., as assistant district manager of the Western Mesabi district.

A. Y. Peterson, formerly assistant general superintendent of the Chisholm district, has been transferred to the Coleraine district of the Oliver Iron Mining Company as general superintendent.

Arthur K. Adams is again at Spencer, Mass., after a lengthy sojourn in Chile, where he has been connected with the Andes Copper Mining Company.

George H. Cushing, of Chicago, after attending the Coal Association meeting in Philadelphia, spent several days in Washington.

Index to Advertisers

(*Continued from page 213*)

Professional Cards 37
Prox Company, The Frank 27
Randle Machinery Company, The 31
Richards, J. W 37
Roebling's Sons, John A 14
Ruhl & Stewart 37
Standard Scale & Supply Co., The 6
Stephens-Adamson Mfg. Co 20
Thorne, Neale & Company, Inc 42
Tout & McCarthy 37
Union Electric Company 23
Vulcan Iron Works 8
Western Chemical Mfg. Co., The 37
West Virginia Rail Company, The 31
Wier Frog Co 25
Wilmot Engineering Company 31
Wood Equipment Company, The 17
Worthington Pump & Machinery Corp. 8
Wyoming Shovel Works 3

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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

CAPITAL PUNISHMENT FOR GERMANY

Most, and we hope all, Americans heartily approve of President Wilson's statement of the reasons why the United States is involved in the great war, the purposes sought to be accomplished and the declaration that it is not a war of conquest.

These statements cover the aims of this country in the enormous sacrifices which are being made now and in the assumption of the burdens which must be carried throughout the years to come.

These future burdens may be best comprehended by a consideration of the fact that, if the war shall continue for three years, our part of the cost will equal the total present value of all the real property in the country and must be paid from the earnings of that property.

The world is to be made safe for Democracy, but no territorial aggression to be sanctioned so far as the United States is concerned.

The United States can for itself properly say no territorial aggression; but should that be her position with reference to other of the allied countries? Every patriotic American citizen has within him a grim determination that without regard to cost this war must be won and that its winning must be so decisive that the Allies can make the terms of settlement. Prussianism must be crushed, so completely crushed that it must sue for mercy and be obliged to accept such conditions and such conditions only as the Allied Councils believe to make for the safety of democracy.

Can anyone believe that a reorganized German Empire will ever be anything but a menace to world safety? Will the temporarily subdued Prussian be else than a Prussian, still resentful of defeat, filled with hate for his conquerors, and obsessed with the hope of retaliation?

German thrift and German skill had made for Germany a pathway to the industrial supremacy of the world.

German disregard of the rights of women had made for her a population, which would have conquered Europe but for the advent into the struggle of the American armies through which alone will the tide be turned and Democracy made to triumph.

Is it safe to permit this process to begin over again? Is it fair to the world to allow the animus which in 1872 began preparation for the present conflict to again nest its foul brood? We have beguiled ourselves with the thought that we are fighting the German government and not the German people. We are beginning to comprehend that the German people are at one with the German government and that it is the German idea, *it is Prussianism which is to be conquered and, when this is done, then must every possible hope of its regeneration be exterminated.* The German people must, like malefactors with inherent possibilities of reform, be put under control of beneficent governments to be taught the elements of brotherly love and kindness; to be taught industry for the sake of human happiness and not as a preparation for wholesale human butchery. *The German government has forfeited all right to existence. It has been* *guilty of the greatest capital crime of all history. The infliction of the death penalty is all too light a punishment for its brutal offense. Let the German government be dismembered and its territory be divided among the allied surrounding nations* both for the future safety of the world and also to recompense, to a small extent, those nations whose territory has been desolated and desecrated. Germany, by virtue of its premeditation of its great world crime, was able to save her own territory from the devastation which has come to Belgium, to France and to Italy. The property damage to these countries is enormous. Germany cannot make reparation for the loss of life caused by her rapacious cruelty. She can, in part, make redress for the financial loss which her brutality has deliberately created. To exact less would be an intolerable injustice. To grant more would but perpetuate those forces which in due time must call for another world war. *Shall we turn loose the unreconstructed criminal and furnish him with the tools and the opportunity for another world outrage, or shall we make certain once for all that Prussianism is dead?*

This is the prime requirement to insure universal peace.

First.—That the elements which premeditate world conquest shall be so situated as to make such intent hopeless.

Second.—That all nations may have warning that extinction is the certain penalty for starting a war in violation of world comity and in deliberate and shocking outrage of the moral sentiment of the world. Let Belgium, France and Italy divide the territory and assume, to the nations of the world, the obligation of humane governmental control and continuing protection against future world turmoil.

SECRETARY McADOO ON GOLD PRODUCTION

In a recent letter to Delegate Sulzer of Alaska, Secretary of the Treasury McAdoo goes on record in the statement that gold is the most needed war essential and production must be kept to the highest possible maximum. In view of the talk in some quarters that the mining of gold is a non-essential industry and in view of the enormous burdens which are now being placed upon that industry, by the increasing cost of labor, supplies, and transportation and the handicap caused by the withdrawal from gold mining operations, of much of the best help, either by call to the service or in response to the higher wages paid in other lines of industry. This letter brings much of encouragement.

Mr. McAdoo's letter was in part as follows:

> "At no time has this country so much required the largest possible production of gold as at the present. Next to food and ammunition, gold is one of the most needed war essentials. In order to plan the enormous amount of government bonds required to finance our war expenditures, a large credit structure will inevitably be erected on our gold reserves. And it is necessary that these reserves, which are the foundation of the structure, shall be maintained on the broadest possible basis."

MINING CONGRESS JOURNAL fully agrees with Mr. McAdoo. Gold production must be kept up and failure to keep it up will mean a depreciated currency. It is very evident that artificial stimulation will be required to keep gold production at anything like a high maximun. Unless something is done to keep the value of the product of the gold mines in proper ratio with the war time expense of operation, gold mining in this country will cease except in those mines where gold is a by-product. MINING CONGRESS JOURNAL will be glad to know of some plan which will prevent the utter extinction of gold mining industry of the United States.

AFTER WAR COMPETITION IN FOREIGN MARKETS

It becomes increasingly certain that competition in the world's market will be much fiercer in the after-war period than ever before in history. A large proportion of the world's stored wealth will have been mortgaged to meet the war expense. Those nations of the world which have been longest in the conflict will be most greatly impoverished. To meet the interest upon the enormous burden of public debt, the peoples of all of these countries will be forced to earn more and to consume less, to prevent repudiation of their indebtedness.

The level of wages in the United States has always been maintained at a higher point than in European countries. While the dollars and cents paid in wages hereafter may not diminish, the purchasing power of the wages of money will be so greatly decreased, that comparatively speaking, wages will be at a comparatively low level. The more impoverished a nation may be, the more necessary it will become for it to sell its production in foreign markets in order to secure that surplus required to pay interest and to reduce as far as it may be possible, its bonded indebtedness. It is probable that the comparative level of wages between this country and European countries will be maintained, but the necessity of those nations to sell goods in our markets will be intensified in proportion to their poverty.

The United States has a productive capacity in excess of its possible consumption. In the future as in the past, it will be necessary for us to sell in foreign markets our surplus of production in order to keep our productive capacity employed, which will force us to compete in foreign markets as well as to defend our home markets against foreign competition. The fierceness of this foreign competition in our home market as well as the foreign market, will depend upon the necessities of our competitors. How successfully we shall meet that competition obviously depends in the first place upon our business organization. At the present time, the business of the nation is being conducted from Washington and for patriotic reasons the business of the nation is lending itself to this direction and in every way falling in line with the powers that be in order that there may be that centralized control, of that autocracy if you like, which is necessary to enable the Government to work as one great war machine.

The Sherman Law is forgotten. There is practically no such thing as business competition, everything that is produced can be sold months in advance, and the price of an article scarcely enters into the negotiation for its purchase. In the after period, if the Sherman Anti-Trust Law is still upon the statute book, and if ambitious politicians can make political capital by baiting the corporations, both of which conditions may possibly prevail, it will be exceedingly difficult for business to stand the competitive waste with which the business life of America has been handicapped in the past. The business men of the country, not the professional politicians, must be relied upon to prepare and execute the plans by which we shall be able to maintain ourselves in the fierce industrial competition of the future.

COMBINATIONS IN EXPORT TRADE

The New York Times calls attention to the failure of export producers to utilize the authority recently granted by Congress by which combinations in foreign trade were made immune from the restrictions of the Sherman Anti-Trust Law and urges that "every industry which sells in foreign markets should have a committee planning for the co-operation which the Webb law allows." Ambassador Gerard, in a recent address before the New York Board of Trade said, "If the Sherman Anti-Trust Law, remains on our statute books we shall not be able to compete in foreign markets after the war or to cope with the new German economic system."

The people of this country should awaken to the fact that big business and combination in restraint of trade are radically different. That the former is a necessary part of our present day industrial life and that the latter cannot exist any length of time unless protected by either the control of the whole supply of raw material or by special advantage in transportation facilities.

It is true that an efficient and comprehensive selling agency may for a time control the market, but only so long as such agency by virtue of its efficiency is able to market its goods more cheaply.

To the extent that any agency in a field permitting competition can, by virtue of its magnitude, so cheapen the cost of production, distribution and exchange as to permanently bring to the consumer a cheaper and better service, that agency is a public benefit and should be encouraged rather than restricted. At the point where big operations become more expensive than the same amount of business in the hands of many smaller agencies it should and will fall before that competition which individual initiation is always ready to develop.

The Sherman Law should stand guard against conditions which stifle the exercise of individual initiative and permit the law of supply and demand to freely operate. It should not, as suggested by Mr. Gerard and many others, be repealed, but it should be modified so as to permit, under government regulation, such combinations as will enable business to be conducted with greater efficiency where such combinations are not inimical to the public good.

FREIGHT RATE ADVANCE AND THE GOLD MINING INDUSTRY

The burden of the recent increase in freight rates amounting to approximately twenty-five per cent throughout the country has created a serious problem as to how it is possible to carry on the industry with this additional burden. The mine operators in Utah have held several conferences with the smelter operators, both of whom realize the danger which this increased burden carries to mining in that state.

While this burden rests primarily upon the ore producer, yet in certain low grade ores the additional burden will curtail production in such a way as to prevent the smelters from operating at full capacity, thus adding a material increase to the overhead expense of smelting operations. The Utah Committee on behalf of the operators having this matter in charge includes Messrs. Imer Pett and A. G. Mackenzie, president and secretary respectively of the Utah Chapter of the American Mining Congress; J. C. Dick, G. W. Lambourne, and F. J. Westcott.

It is assumed that several changes will be required in coming smelter contracts and it is apparently necessary that an increased price for metal shall be received in order that there shall not be a radical curtailment of production in that and other states. In the strictly gold mining districts the burden is correspondingly heavier because the price of the output has not and cannot respond to the increased average of prices of other minerals. The largest gold mining operation in the Cripple Creek district after losing more than one-half of the men on its payroll for army service, produced during the first four months of this year gold bullion to the amount of $454,665, but owing to the deficiency in labor and the increased cost of powder and supplies, made no profit whatever during those months. This company had planned by the discontinuance of its development work and by greater economy of operation, to continue its operations without loss to the stockholders. When the increase in freight rates calls upon them for an additional expense of more than $20,000 monthly, the company will again be placed on a losing basis.

The mining industry will make every possible effort to adjust itself to these new conditions although in some instances the way does not seem plain. We must assume under the circumstances that the order increasing freight rates was properly made, although it is a matter of interest to note that only a few years ago the request of the transportation interests of the country for a five per cent increase in freight rates was regarded by the people, and particularly by the ruling powers, as being an unconscionable request. However, these are war times, autocratic power is essential to the conduct of the war and the mining fraternity must accept the burden as it comes and do its best to meet conditions by readjustment.

THE CRISIS IN GOLD MINING

Money is the life blood of commerce. Gold is the basis of money.

The gold supply of the world has been falling off very rapidly. The credits placed upon gold have been increasing with startling rapidity. The increase in demand for money, created by the increase in business transactions, has been met with currency—promises to pay—notes of credit, good notes so long as the gold foundation upon which they rest is kept at a proper ratio. As commodity prices, based on a rapidly increasing circulating medium, go up, the relative value of gold goes down. The cost of gold mining has been and is rapidly increasing while the value of the output remains stationary. Gold production has reached a crisis. While production has been gradually growing less, present conditions will shut off production altogether, except in mines where gold is a by-product. Gold production is on the verge of a precipice and, unless help is given, cannot continue. Low grade gold mines are now operated at a loss and there appears to be no hope for the future. A bonanza gold deposit in which twenty years' effort culminates in one or two years' excessive profits have the profit of the twenty years' effort treated as the profit of one year, and the war excess profit tax law takes all the profit and a large part of the original capital. There is nothing to stimulate the gambling instinct which searches for high grade mines. There is no hope for regular low grade gold mining operations. This presents a startling situation when its consequences are considered. The structure of credit cannot continue to grow while the foundation upon which it rests remains the same.

Our Liberty Bonds are a promise to pay in gold. If production is stopped the gold cannot be available for their redemption. A world effort to liquidate would produce a money panic which would put gold in its proper relation to general prices. A better method must be found to meet this situation.

It now costs nearly double as much to produce gold as in normal times. Gold therefore should be and if not controlled by governments would be, at a 100 per cent premium. Gold is now at a premium in foreign countries. The hope of being able to take advantage of possible premium advances would give hope to the gold mining industry. Many small things may properly be done for gold mining. First, gold production may be relieved from the requirements of the war excess profits tax law. This would justify speculative effort in the finding of high grade ore bodies, but would be of no assistance to the regular operations which are not making a profit. Second, gold mining may be classed as a war industry through which preference might be given in obtaining its supplies. Third, freight rate advances as relating to gold mining might be remitted. Fourth, its employes may be made immune from draft into war service. These things would be helpful, but this help would not be sufficient to keep up the proper ratio of production. The Mining Congress Journal is on record to the effect that sooner or later governments will find it expedient to offer a bounty on gold production from low grade ores. This cannot be suggested as a practical solution at this time, because immediate aid is necessary. What is there, then, that can be done to prevent the extinction of the gold mining industry?

Our suggestion is that the embargo shall be lifted upon the exportation of all *newly produced gold*, and allow the present and future gold production to take advantage of the premiums which now or hereafter may obtain. The present foreign premium of 4 per cent is not consequential except that it brings hope to the gold miner that he has an even chance in the world's markets. The Mining Congress Journal now predicts that, unless some substantial help is given to the gold industry, gold will be at a premium of 50 per cent within five years. To state it differently, currency will be depreciated to 66½ per cent of its face value. *The appeal of the gold industry to the nation has been unheeded. The appeal of the nation to the gold industry will be heeded*, but the unwatering of abandoned mines, the rebuilding of abandoned treatment plants, the assembling of working organizations, will be as tedious and as exasperatingly slow as the assembling, the training and the equipment of an army from raw material to meet the oncoming rapacity of a well disciplined Hun army. This country will lose no gold by this plan because, without aid, no gold will be produced. All gold produced by this stimulation will be available for purchase at whatever premium shall prevail—and if not purchased will in foreign ownership to that extent relieve the demand upon our own reserves.

A better plan still would be the payment of a bounty on all newly produced gold, such a bounty as would cover the increase in production costs. This plan may not be feasible because of public sentiment, but we must wake up to the necessity of doing something even at the expense of cherished notions of conservatism.

We have learned the lesson of preparedness for war. Shall we learn the lesson of preparedness for financial cataclysms which bring want, suffering and starvation to every corner of the industrial world? We urge that the only practical thing that seems immediately possible is to cancel the embargo upon the exportation of newly produced gold, allowing the present and increasing need of gold in the world market to operate as a stimulant to the gold miner to maintain his productive machinery, and meet his present losses cheerfully with the hope of recompense as the world's demand for gold shall be permitted to manifest itself.

REVENUE LEGISLATION

The Ways and Means Committee of the House closed its open hearings on the new revenue bill on July 2, after hearing testimony for nearly a month. A great many schemes of taxation have been advanced to the committee. The committee has had a full attendance in nearly all of its meetings, and it is apparent that there is an earnest desire on the part of the committee to raise the needed revenue requested by the President and the Secretary of the Treasury, and it is further apparent that the committee is earnestly seeking to provide a measure that will be equitable in assessing the burdens of taxation upon the taxpayer. Many appearing before the committee have suggested that the new revenue bill should be in the form of a pure war profits tax instead of the excess profit tax as is the existing law. The existing law arbitrarily fixes the pre-war profits at a minimum of 7 per cent and a maximum of 9 per cent of invested capital regardless of earnings at such time. The proposed remedy of the pure war profits tax would allow the full profits during the pre-war period without arbitrarily fixing such profit. It is apparent that some members of the committee are more favorable to the war profits idea if it would raise the needed revenue, although it was stated at different times by members of the committee that a war profits tax for the year 1917 would not have returned as much revenue as the existing law has.

The MINING CONGRESS JOURNAL hopes that the committee in drafting the bill will remove the inequitable provisions of the 1917 law so that the tax to be applied will do equity as between taxpayers. It seems to be conceded by almost everyone having studied the subject that the present bill is difficult to understand and to apply with equal fairness to all, but that the Treasury Department, through the advisory board, has adopted rules removing a great many of the hardships resulting from the discriminations of the bill and has gone far toward equalizing the tax.

The mining industry, together with all other business interests of this country, realizes that the tax to be imposed for the year of 1918 will be greater than the year 1917 in order that the necessary requirements of the Government may be met. It is the announced intention of raising by taxation $8,000,000,000, and this will mean additional tax burdens upon the great mining industries of this country. The MINING CONGRESS JOURNAL knows there is not an industry that is composed of any more patriotic and loyal American citizens than the mining industry, and knows that these men will willingly do their share toward maintaining the Government in winning this war. It has been the announced position of mining men that they would contribute willingly from their profits any percentage required by the Government in the way of a tax, if in drafting and applying the tax the same demand be made upon every industry and that the tax be made to apply with equality as between individuals, and on further condition that the law as drafted and applied would recognize the extreme hazards and speculative features of mining, and that further recognition be given to the fact that mining is different from other business in that it is a business in which the principal assets are wasting.

There have been but few witnesses before the committee speaking for the mining industry. The lead and zinc producers from the Kansas, Oklahoma, and Missouri districts were represented by A. Scott Thompson, of Miami, Okla., on June 19. Mr. Thompson did not pretend to speak for the mining industry as a whole, but only on behalf of the districts named. He showed to the committee the peculiar conditions existing in this field, being peculiar in that nearly all of the operations are upon leased property, and that the individual properties are of short life. He showed to the committee that this field is made up of a very large number of small operations and that there were no large individual operations in the field, but that the aggregate production of this district has become nearly 50 per cent of the present zinc ore production in the United States; that there are but few financially strong individual producers in this field, but that in the aggregate the district has become an important factor in the zinc ore producing industry. Mr. Thompson further showed that the camp or district had been developed by the pioneer or wildcatter, and in such development many attempts had been made that were not successful, and that in the application of the present tax the owner of the successful mine was not entitled to take into account his outlay in the losing ventures, and that the incentive to take chances and fail repeatedly was the hope of securing a mine that would yield large and quick returns. The present law destroys this hope by limiting the return on the successful mine to 9 per cent on invested capital. This will destroy the incentive to prospect new fields and will eventually curtail production. Another condition existing in this field was called to the attention of the committee by Mr. Thompson with regard to sales of mining property. The present tax law fixes the taxable income on profit as a difference between the original cost of the property sold and the price received therefor. It is frequently the practice in this district for one to secure a lease on a given tract of ground and the lessee proceeds to prospect by drill. If successful in such prospecting, a valuable ore deposit may be discovered and the lease made valuable. The mere cost of drilling is exceedingly small, as compared to the value of the lease after the ores are discovered. In many instances the lessee is one of small means, not able to further develop by the building of mills and sinking of shafts, and it is necessary to sell. The present law will take practically 60 per cent of the purchase price, as the cost price of the property is comparatively nothing as compared to the market value of the lease after the ores are discovered. The result is that those who are advised of the application of the tax are not selling their property, but are holding their properties and are expending only a sufficient amount of money upon the property to keep it from forfeiture. Mr. Thompson urged due consideration of this condition and that a flat rate of tax should be imposed upon the profit derived from the sale of mining properties. It was urged that a 9 per cent deduction upon invested capital is not a sufficient return in the mining business in this district as allowed to all other business, and attention is called to the fact that there were great hazards and risks in the business, that the average life of a mine in this district was short, and large returns were necessary in order that the industry might survive and expand.

The committee listened to this testimony with a great deal of interest, and individual members expressed a desire to recognize the peculiar and special business of mining, and particularly in this district, where the life is short and the returns must necessarily be larger. Members of the committee expressed the conviction that a larger deduction should be allowed than in any ordinary business and asked for a remedy. We feel that the committee is earnestly trying to perform its duty and that some fair recognition will be made of the mining industry.

On July 24, Judge Shea, of Tulsa, Judge S. W. Hayes, of Oklahoma City, and J. R. Cottingham, of Oklahoma City, presented to the committee the peculiar conditions of the oil and gas industry. This testimony was well presented and several suggestions were offered as to the separate treatment of the oil and gas business. These representatives suggested the following:

First: That invested capital be the market value of the property as of the first day of January, 1917, and that there should be added thereto any money or tangible property that would be added subsequently thereto, to be averaged monthly for the taxable year, and they further advocated that borrowed money employed in the business be considered invested capital and that all paid in or earned surplus and undivided profits employed in the business including that of the taxable year be averaged monthly and considered as capital invested.

Second: They advocated further, as has been advocated by men from the lead and zinc district, that all properties discovered and developed since January 1, 1917, be treated separately in that the full capital invested be returned in depletion and depreciation before any tax is imposed.

Third: That in the sale of oil or gas property a tax of 8 per cent on the profits be in lieu of other taxes and that the profit be the difference between the fair market value of the property as of January 1, 1917, and the purchase price.

Fourth: In the case of oil and gas properties a deduction on invested capital is asked of not less than 15 per cent nor more than 20 per cent.

Fifth: That there shall be created by the new tax law an equalization board to be appointed by the Treasury Department to sit permanently, the purpose and the powers of this board to be to equalize the tax as between taxpayers and to thereby avoid discrimination and injustice which might result from any inequality in the application of the law.

The committee gave marked attention to the presentation by these gentlemen, and various members of the committee expressed the conviction that because of the hazards and the risks in seeking for oil and because of the short life of a discovered well that this business, as well as the lead and zinc business of a short-life district, should be given special treatment and urged these gentlemen to submit a proposed measure recognizing such peculiar features of the business.

The Mining Congress Journal feels that careful consideration should be given to the suggestions by members of the committee, and that some relief will be obtained in the new measure if fairly presented to the revenue committees of Congress.

LEITH GOES TO WAR INDUSTRIES BOARD; SPURR TO MINES BUREAU

The Committee on Mineral Imports and Exports in Washington has finished the work for which it was formed, namely, that of formulating programs for the minimum importation of ores and minerals, in order to save shipping for war purposes without crippling any essential industry. These programs have now all been formulated and approved by the various government departments interested, and are practically all in effect. Therefore, the committee has thought best to terminate its existence as such. Routine work connected with questions arising from the enforcing of the programs will be handled by the former staff of the committee under the direction of Dr. E. F. Gay, of the United States Shipping Board, under whose authority the committee was organized for the purpose above mentioned. The committee consisted of Messrs. C. K. Leith, J. E. Spurr and Pope Yeatman, representing the Shipping, War Trade, and War Industries boards.

Messrs. Leith and Spurr remain in a consulting capacity to the Shipping Board as mineral advisers. In addition to this, Mr. Leith has been appointed mineral adviser to the War Industries Board from the standpoint of the conservation of shipping, and Mr. Spurr has accepted an invitation to take charge of the war minerals investigation campaign for the Bureau of Mines. Mr. Yeatman continues in charge of the Non-ferrous Metals Division of the War Industries Board.

An extension and continuation of the work undertaken by the committee is thus assured.

Clean Coal

Certain shippers of "snowbird" coal from the anthracite region have been stopped by the local administrators, greatly to the satisfaction of the anthracite industry, for the anthracite operators are insistent for clean coal for the consuming public.

TELLS OF PROFITS WITHOUT PRECEDENT

Federal Trade Commission in Report to Senate Says Low Cost Producers Are Making Enormous Earnings.

The Federal Trade Commission has submitted a report in response to the direction under Senate Resolution 255 that it furnish the Senate with any and all facts, figures, data or information now in possession of the Federal Trade Commission relative to profiteering which would in any way enable Congress to deal with the matter either through the present proposed resolution or through enactment of more effective criminal statutes.

Extracts from the Commission's report follow:

COPPER

Very large earnings have been made in the copper industry on the whole, although it should be noted that they have been due in part to an unusually heavy demand for this metal, which is used almost exclusively for war purposes directly and indirectly. The Commission's figures show that twenty-one companies, including a large proportion of high-cost companies, made profits in 1917 which ranged from 1 per cent to 107 per cent on their investments. The average profit was 24.4 per cent. Probably over 70 per cent of the production is marketed at profits over 20 per cent on investment. These same companies show an average profit of only 11.7 per cent in 1913, which may be considered to be a normal year. Thus the average profit in the industry has more than doubled. The range of profits in 1913 was from 1 to 56 per cent.

The profits used in these computations do not include Federal income or excess profits taxes, and, therefore, represent sums actually retained by the companies for addition to surplus or dividends.

There does not appear on the whole to have been any concerted action in this industry in putting prices up in the first instance. The war scramble among the Allies shot the prices of copper and other metals to almost unheard of levels. But there are certain strong interests among the producers and marketers which predominate in certain stages of production, and these appear to have taken steps to maintain prices at unnecessarily high levels. In the first place, the smelters, and notably the American Smelting & Refining Company, have continued to hold in force certain deductions for risk of carrying copper bought from mines, which risks have ceased to exist. These deductions were put in force during the early period of the war, before price was fixed by agreement with the War Industries Board.

Their present maintenance amounts to profiteering at the expense of the miners, especially the small producers. On the other hand, some of the larger and richer mines have contracts entered into before the war running for periods as long as twenty years, which are extremely advantageous to them and which are now causing some refineries to operate at a loss.

ZINC

Most of the evidence in the Commission's possession indicates no unusual profits in the zinc industry, with the exception of the operations of the New Jersey Zinc Company.

Basing percentage on the capital stock issue of $35,000,000, the following net earnings and dividends are shown for the New Jersey Zinc Company according to published statistics; 1916, profits, 72.5 per cent, dividends 76 per cent; 1917, profits 56 per cent, dividends 46 per cent. The Federal Trade Commission's figures as to these same net earnings and dividends are available only for 1916, and indicate profits of 95.9 per cent, with dividends of 76 per cent.

These large earnings do not indicate excessive profits on metallic zinc. The company's profits on common spelter are very low, and on Grade A spelter while high are due to the fact that it possesses a natural monopoly of a certain high grade ore, the product of which cannot sell for less than the zinc produced by competitors. In fact, the whole explanation of the New Jersey Zinc Company's large profits lies in its possession of an ore body of unusual richness and purity.

NICKEL

The dominating factor in the nickel industry is the International Nickel Company, which produces practically the entire output of that metal in this country. The profits of the International Nickel Company in 1916 were $13,557,000, and the dividends were $10,575,000, which sums amounted to 40 per cent and 31 per cent respectively based upon the investment as computed by the Commission. Taking the total capitalization and surplus of the company as a basis, the net earnings would be 20 per cent and the dividends 15.6 per cent. In 1917 the profits on the Commission's basis were 30 per cent and the dividends 24 per cent, and on the basis claimed by the Company the profits were 15 per cent and the dividends 12 per cent.

This company has a natural monopoly based on the ownership of the Canadian mines from which the nickel ore is derived. It has, however, maintained prices on a pre-war basis. Consequently, while prices are high and the profits very large, the increase in profits has been due to the increased war output rather than to advances in price. Therefore, it does not seem that any profiteering can be charged, unless in a negative sense, *i. e.*, the company might have been satisfied with smaller profits in war times. This is especially worthy of consideration, inasmuch as practically the entire output of the company is taken for war uses.

SULPHUR

Two companies produce all the sulphur in this country; the Freeport Sulphur Company and the Union Sulphur Company.

The cost of the Freeport Company in 1917 was $6.15 per ton; in 1918 it is estimated that increases will bring the cost up to not over $9.50 per ton. In the first half of 1917 the Union Company's costs were $5.73 per ton. The average realization of the Union Company in the first half of 1917 was $18.11 per ton, making a margin of $12.38 per ton. The manufacturers of suplhuric acid are paying in the neighborhood of $25 per ton, and some as high as $35 per ton, making margins of over $15 per ton for sulphur companies. The Freeport Company's balance sheets show an operating profit for the eleven months ending October 31, 1917, of $4,301,310, or 236 per cent on investment. On November 30, 1916, the Company's balance sheet shows dividends declared of $925,000; on July 31, 1917, $1,850,000; and October 31, 1917, $2,600,000. Its surplus increased from $1,254,000 in November, 1916, to $2,543,000, in October, 1917.

These companies may be said to have a natural monopoly of sulphur. Since they have placed their operations upon an established basis, they have always made large earnings. They have taken advantage of the existing situation to raise their prices.

PETROLEUM AND ITS PRODUCTS

The data secured by the Federal Trade Commission for 106 refining companies for the first quarter of 1918, supplemented in certain cases by returns for the second six months of 1917 indicate that the average profit in the oil industry is about 21 per cent on the investment. This is a considerable increase over the rate of profits indicated for pre-war years, as the Commission's gasoline report indicates an average profit for the years 1913, 1914 and 1915 of 15 per cent on the investment. In 1917 over 50 per cent of the estimated production was produced by companies having a profit of over 20 per cent on the investment. Rates of profit ranged from losses up to 122 per cent.

The profits of the Eastern refiners have been relatively larger than those on the Pacific Coast. The situation in the East is due to the fact that while gasoline prices have been but slightly advanced, the prices of other products have been increased greatly, especially the price of fuel oil. The public knows little about prices except the price of gasoline and to a less extent kerosene. Formerly refineries operated for the sake of the gasoline almost exclusively, and fuel oil was commonly sold at a loss, but now fuel oil is a very profitable product.

The following table will show the per cent of net earnings on investment for a series of years. The earnings for 1918 are estimated on the basis of the second six months of 1917 or the first quarter of 1918.

	1913	1914	1915	First quarter. 1918	1918 (Estimated)
Atlantic Refining Co....	16.4	−3.7	21.7	15.0	30.0+
Standard of Indiana....	36.5	14.5	36.0	21.7	43.3+
Standard of New Jersey....	9.7	7.8	20.6	9.1	18.2+
Standard of New York....	21.2	8.1	16.0	6.6	13.3
Standard of Ohio....	23.4	13.8	23.9	14.3	28.6+
Standard of Kansas....	91.6	1.0	17.9	25.6	51.3+
Magnolia Petroleum Co....	19.2	16.5	14.2	4.4	17.6
Standard of California....	16.8	12.5	10.6	6.5	25.9+
Continental Refining Co....	1.6	−7.8	3.3	1.2	4.7+
Empire Oil Works....	4.4	−3.1	5.6	7.3	29.2+
Penn American Refining Co....	35.3	13.3	12.3	15.8	63.1+
Cosden & Co....	....	30.6	−50.7	5.9	23.5
Muskogee Refining Co....	8.7	6.9	18.8	6.2	24.8+
National Refining Co....	24.9	8.0	20.4	2.3	9.2
The Texas Company....	17.1	13.3	12.7	13.3	26.7

SALARIES AND BONUSUS

Below are given the payments in salaries and commission which were made in 1917 for services rendered by the American Metal Co., Ltd., New York. These payments are reported as being made exclusively for services in their capacity as described below and charged in all cases to expense account:

Officers and Managers: Salaries and Tantieme

Name of payee	Address	Position	Total payment
B. Hochschild	61 Broadway, N. Y.	Chairman of Board of Directors.	$179,663.36
C. M. Loeb	61 Broadway, N. Y.	President	364,326.73
Otto Sussman	61 Broadway, N. Y.	Vice President; Chief Mining Dept.	221,596.04
J. Loeb	61 Broadway, N. Y.	Vice President; Chief Sales Dept.	147,930.69
T. Sternfeld	126 West 74th St., N. Y.	Director and Treasurer to 6–30–17.	86,342.90
Henry Bruere	61 Broadway, N. Y.	Vice-President	82,810.23
Julian B. Beaty	61 Broadway, N. Y.	Director and Treasurer since 6–30–17.	77,710.23
H. K. Hochschild	61 Broadway, N. Y.	Vice-President, Chief South American Dept.	51,810.23
H. V. Putzel	61 Broadway, N. Y.	Director and Chief of Zinc Ore Dept.	52,710.23
M. Roos	61 Broadway, N. Y.	Cashier and Custodian of Securities.	79,065.35
S. Adler	61 Broadway, N. Y.	Chief Auditor and Accountant.	79,065.35
H. Bernstorff	61 Broadway, N. Y.	Chief Ore Dept.	52,410.23
Sol Roos	1625 Boatman's Bank Bldg., St. Louis, Mo.	Manager St. Louis Office	148,530.69
M. Schott	825 A. C. Foster Bldg., Denver, Colo.	Manager Denver Office	136,553.12
Wm. Simon	1625 Boatman's Bank Bldg., St. Louis, Mo.	Asst. Manager St. Louis Office.	38,155.11

Managers and Employees: Salaries and Bonus

Name of payee	Address	Position	Total payment
W. E. Brady	61 Broadway, N. Y.	Manager of Transportation Dept. Now Am. Metal Transp. Co.	$11,800.00
W. H. Brady	61 Broadway, N. Y.	Assistant Cashier	9,300.00
H. M. Burkey	61 Broadway, N. Y.	Metallurgical Dept	5,200.00
M. Fauquembergue	61 Broadway, N. Y.	Chief Clerk Sales Dept	9,300.00
John Fornfinne	61 Broadway, N. Y.	Asst. Traffic Manager	7,400.00
Gustav Loers	61 Broadway, N. Y.	Traffic Manager	9,150.00
B. F. Phillipson	61 Broadway, N. Y.	Asst. Mgr. Ore. Dept	9,600.00
E. T. Villareal	61 Broadway, N. Y.	Mgr. Foreign Metals Dept.	12,200.00
Hans Schild	61 Broadway, N. Y.	Bookkeeper	6,190.00
Wm. Weidowke	61 Broadway, N. Y.	Clerk, Zinc Ore Dept	5,850.00
John MacMetchie	61 Broadway, N. Y.	Auditor for Subsidiary Corps	12,800.00
B. N. Zimmer	2287 Henry Oliver Bldg., Pittsburgh, Pa.	Mgr. Pittsburgh Office and Langeloth Works.	10,800.00
H. L. Brown	825 A. C. Foster Bldg., Denver, Colo.	Mining Engineer Denver Office.	6,350.00
F. D. Weeks	Canandaigua, N. Y.	Chief Mgr. Engineer. (Resigned.).	23,500.00
C. E. Kayser	406 First Natl. Bank Bldg., Bartlesville, Okla.	Manager Gas Operations	7,000.00

Generally speaking, the bituminous coal operators in 1917 had very much larger margins than in previous years. While in 1916 the margins (what operators actually received for coal sold over f. o. b. mine cost) may be regarded in some cases as lower than normal, yet the margins of 1917 were often two or three times the normal return. In the figures for 1916 and 1917 mentioned below return on investment must be covered in margins shown. The increase of margins is illustrated by an examination of the returns for 1916 and 1917 of twenty-three typical bituminous coal companies in the Central Pennsylvania field. The average margin of these companies in 1916 was 20 cents per ton, and in 1917 was 90 cents. The highest margin for any company of the twenty-three companies in 1917 was $1.85. The corresponding margin for this company in 1916 was 41 cents. Similarly the lowest margin for any of these companies in 1917 was 27 cents, the corresponding margin for the same company in 1916 being 13 cents.

Maximum coal prices f. o. b. mines were authoritatively fixed August 21–23, 1917, by Executive Order, and subsequently modified by the Fuel Administration. Contracts made before that time were not invalidated. In some fields as high as 90 per cent of possible production was sold under contract prices. While some contracts were below legal maximum price, probably much the greater part of the coal sold under contract went at prices substantially in excess of legal maximum prices fixed for current sales.

April realizations contain relatively little coal sold on contracts made prior to August 21, since most such contracts expired April 1, 1918. Sample reports for April operations, covering 12,619,274 tons actually mined in West Virginia, Pennsylvania, Ohio, Indiana, Illinois, and Kentucky show an average margin between claimed f. o. b. mine cost and actual realization from sales of about 54 cents, as against a prewar margin of an average of 10 to 15 cents.

In anthracite the average receipts per ton, including all sizes, during the year 1914, (13 companies, producing 79 per cent of the total tonnage in 1916), were $2.86 per ton. The average receipts per ton of anthracite, including all sizes, allowing for later obligatory summer discounts on prepared sizes, during the period January-March, 1918 (6 companies, producing 50 per cent of the tonnage in 1916), were $4.26 per ton. The average labor cost increase per ton since 1914 was 76 cents and if this is deducted from the 1918 average receipts per ton an increase of 64 cents per ton (or 22 per cent) in average receipts is indicated, without allowance for increased cost of supplies and general expense.

Tidewater Coal Must Be Dumped Promptly.

Notice has been served on the Tidewater Coal Exchange by the United States Fuel Administration that coal must be dumped promptly in order to release coal cars for further movement.

VIEWS ON TAXATION GIVEN TO COMMITTEE

House Prepares for Drafting of New Revenue Bill—Representatives of Many Industries Testify

An extended hearing on revenue legislation has just been completed by the Committee on Ways and Means of the House of Representatives. The hearing is by far the most comprehensive ever held on taxation. Some idea of the nature of the hearings may be obtained from the following extracts from the stenographic record of the proceedings:

Statement of A. Scott Thompson, attorney at law, Miami, Okla., representing zinc ore producers of Missouri, Oklahoma, and Kansas.

Mr. Thompson. Mr. Chairman, my name is A. Scott Thompson, and I reside at Miami, Okla. My business is that of a lawyer. I appear here in behalf of the zinc producers of Missouri, Oklahoma, and Kansas. That district is confined to three counties, one in each of those States. I appear here as a lawyer, not as a technical man, in the sense that I am an engineer or a geologist at all. I am not prepared to discuss market conditions, the why and wherefore, but simply thought it was a good opportunity to present to you, as nearly as possible, the actual conditions existing in that industry.

And I would appreciate it very much if this committee would bear with me briefly, as my statement will be short, and permit me to make the statement without interruption; and then if you have questions to ask, I will be glad to attempt to answer them.

I desire to address this committee briefly in behalf of the zinc-ore producers of Jasper County, Mo., Cherokee County, Kans., and Ottawa County, Okla.; Ottawa County Okla., being the northeast corner county of the State, Cherokee County Kans., being the southeast corner county of Kansas, across the State line from Oklahoma, and Jasper County, Mo., being the county adjoining east on the Missouri side. These three counties are producing nearly 50 per cent of all the zinc ore of the United States today. The great bulk of this production is from my home county, Ottawa County, Okla. This district, and I speak of the industry of the three counties named, is perhaps peculiar or different from other mining districts in that there are no very large individual operations. This large production of zinc ore is the result of the effort of many small operations of separate and distinct ownership. I am conservative in saying that in the district within Oklahoma known as the "Miami field" there are at least 300 separate and individually owned mining properties, and this all within a small area. It is safe to say that in the other two counties named, at least 200 other properties are separately owned. Within the district we are not financially strong as individuals or as producers, but in the aggregate we have become an important factor in the zinc-ore producing industry. We are a community of a great number of small companies.

It is this district, made up of many small mines, that I represent today before your committee, a district famous because of the fact that none but American labor is employed, where no foreign labor of any kind is or ever has been known, and oftentimes referred to as one mining field that is 100 per cent American. The laborer, as a rule, is a native of the locality drawn to the mines because of the better wages and the opportunity to provide for his home and family. He is a family man and the camps are surrounded with neat and well-kept comfortable homes, in most instances owned by the wage earner.

I speak of this condition so that this committee may know that my district is made up of men, owners and employees, that are as intensely American as may be found anywhere and, we assert as loyal to their Government as any part of the United States today.

I call your attention to this fact or condition also because at this time I expect to show you that conditions are such in this district that no matter what your action be, no matter what the form of tax be, unless it be a tax on capital and we do not expect that, the Government cannot and will not derive as much revenue from this industry for the year of 1918 as that collected for the the year 1917. We do not want our patriotism challenged when we suggest mere facts or conditions. We may not be able to present or suggest a remedy whereby more tax may be obtained by the Government. We can only be fair to you by laying the facts before you, trusting to the intelligence and fairness of this committee in working out a plan that will secure the needed revenue and at the same time do a minimum harm to an important American industry producing so largely of one of the important metals.

The greater activity and the bulk of the production of this district is in the Miami field in Oklahoma. The lands are owned in fee, in 200-acre tracts by Quapaw Indians with the power to lease for 10 years for mining, but with alienation prohibited by Congress for a period of 21 years. The mining in this field is done by lessees and none by owners of the fee. The Indian leases for a royalty are from 5 to 10 per cent, that is, he receives that percentage of the receipts derived from gross sales of the minerals. The lessee then proceeds to prospect the land by drill and the character of the rock formation in which the ore is located is so changing that a great amount of systematic drilling is necessary, calling for an outlay of considerable money by men of small means before the ore run can be sufficiently marked to justify further development by shaft sinking, driving of drifts, and building of mill or concentrating plants. The lessee usually in the first instance is a "wildcatter," as we term him, the prospector, in many instances associating with himself others with limited means able to prospect and find the ore, but not able to finance the development and the production. He then must sell his lease or find some one able to finance development and willing to pay an additional royalty, on a sublease. The majority of our operations are on this plan.

In most operating mines the operator today is the second, third, and sometimes the fourth subtenant, each tenant receiving a small consideration in way of a royalty on gross production. This has arisen principally because the fact that the fee cannot be bought or owned by the miner or operator. These leases do not permit cessation of work, nor do they permit the milling of the rock by mill on other ground. The result is a large number of small mills on limited tracts, the average mill serving not to exceed 15 or 20 acres. The ore is not found in a blanket formation as in some localities; it is not uniform in its extension over a tract, but is found in runs or veins varying in width, irregular in their course and changing in depth from the surface. I am not a mining man, have no technical knowledge of geological formations, and I use these expressions just as I find them as a lawyer having business with men engaged in mining.

These deposits, when found, are often rich, but because of irregularity, of course, varying widths and changing depths of these runs, the productive life of the average mine is very uncertain, and experience has taught us that it is of short duration. I refer here to the table that has been submitted with Mr. Chapman's testimony before the committee, showing that the average life of the 176 mines that had been completed in our district was two and three-fifths years.

I know nothing of mining in other districts, and want to emphasize that I am in no sense appearing for the mining industry as a whole. I speak for the large number of miners in the district named. I do know from observation in my business as an attorney for fifteen years in this locality that zinc mining in this district, while profitable in many cases, is highly speculative and hazardous. Mining is admittedly different from any other business. The deposit must be sought and extracted from the earth, and the finding of a commercially productive mine is so rare that hundreds fail where one succeeds. This seeking and finding of ore in a mine requires a large expenditure for prospecting by drill and further development by shaft, drift and mills, which expenditure is not always carried to capital account.

Nearly every mining venture with us is incorporated and the property exchanged for stock, the owners taking their proportionate share of the stock. The next venture will be separately incorporated for business convenience, and in nearly every instance the ownership is different in whole or in part. The successful company is for this reason unable to take into account the losses sustained and expenditures incurred in the losing ventures. The corporation must return a tax on a profit on a venture, while, in fact, this profit has many times been lost in other mines proving unsuccessful and no credit can be taken therefor under the present law. Miners are not accountants; they seek a prospect, expending time and money on it, and if it fails, either in the prospecting period or later during its life, it is placed behind him and he proceeds to search for another, spurred on by the hope of some day locating a winning mine; and he may spend his lifetime and all his money in such endeavor.

Mr. Green. Let me see if I understand you correctly. In computing the tax you say that the Treasury Department figured the tax on the work for a year and required you to separate the income for each mine, and that it cannot take the business of the company as a whole, but must take each separate one, and if there is a profit on any it will tax that profit?

Mr. Thompson. I do not think I said that; at least, I did not intend to say it. That is not the practice of the department. The thought I desired to express here was that our district is made up of small corporations. One venture will be incorporated, and it may be a failure.

Mr. Green. Yes, but we do not tax that man on that.

Mr. Thompson. I understand. The point I am raising is this: The same group of men might have four or five ventures which were losses, Mr. Green, and then they might incorporate a new venture, a new company, and make a successful project out of it. Now, they cannot take into account their losses on the four losing ventures; they cannot take that into account in figuring up their taxes upon the successful venture.

Mr. Green. That is very true; but the same thing applies to every other business. Do you think we could formulate a rule that would enable a man, if he belongs to a company that is highly successful, on the one hand, and then is interested in another in some other part of the country that is losing money—do you think we could formulate a rule to have the losses in the losing company deducted in that way or averaged between the two companies? There could not be any way of reaching that.

Mr. Thompson. No; I am not suggesting that. I am just suggesting the conditions. I do not believe there is any business in which men fail repeatedly and then go ahead and continue in the same line of business except among miners. The prospectors, as you know, spend a lifetime in prospecting the wildcat territory, with the hope of some day striking a mine. A prospector will spend all of his accumulations in doing that. I do not think that is true of any other business. I am not suggesting that he might take that into account in figuring his profits upon his successful venture. I am suggesting the condition; and it is peculiarly true of our district, because we are made up of small corporations, and we are confined to a small area, because of the fact that the land in the hands of the Indians and cannot be bought, but can only be leased in limited tracts.

MR. JENNINGS TESTIFIES

Statement of Mr. Hennen Jennings, consulting engineer of the United States Bureau of Mines:

Mr. Jennings. I have a written statement here that I would like to read:

"I am asking a hearing from your committee on the following grounds:

"I am a consulting engineer to the Bureau of Mines, with nominal salary, in connection with the gold industry.

"I was requested by the Director of the Bureau of Mines to make inquiry as to the effect of the present economic conditions and new taxation on the gold industry. I returned from my trip to California on December 12 and made an informal preliminary report on December 22, and shortly after embodied my views in an article on the 'Gold Industry and Gold Standard,' which was published by me in May, with the approval of the Bureau of Mines.

"In my visit to Montana and California I met some of the most prominent men connected with the gold mining industry, many of whom were members of the California Metal Producers' Association. This association has requested the Bureau of Mines to have me appear before you and have communicated with you on the subject, presumably because they approve of the views I have given in my published article. That article was written as a public duty and not in the interest of any corporation or group of individuals.

"Mr. Callbreath, who was to have appeared before your committee this morning, is, on account of ill health, unable to be present, and he has informed me that your committee wished me to give my views as to the gold industry and taxation at the time allotted to him.

"I have been connected in different capacities with gold mining—between thirty and forty years—in California, Venezuela, South Africa, England, and Montana, and have examined mines in Mexico and Alaska, and am conversant with difficulties and cost of producing gold.

"I have given much time and thought to the article on 'The Gold Industry and Gold Standard,' which, I believe, contains much that is pertinent to your inquiry and which I beg to put in evidence.

"My aim is to show that the gold industry differs from all other industries, in that it is impossible for it to obtain any excess profit during this war period; but, on the contrary, it is proportionately burdened as the price of other commodities used in its obtainment advance and as long as the integrity of the gold standard is maintained by this and other countries.

"The advantage of upholding the gold standard should and does rest with the countries that produce the most gold and hold the greatest reserves. We hold the greatest reserves. Great Britain and her colonies and dependencies produce 62.6 per cent of the gold of the world; the United States, second, with 19.3 per cent, while within the territories of the central powers less than 1 per cent is mined.

"The production of the gold of the world was at about a standstill for some years before the war. It is now on the down grade. Our Liberty Bonds are pledges in gold. How can they be redeemed or faith and belief in them kept up if gold outputs are allowed to dwindle while the bonds multiply manyfold?

"Gold is no mere luxury; it is a necessity for the credit and financial unity and strength of the allied countries.

"It is thus vital that gold mining should be encouraged as far as possible and burdened as little."

JUDGE SHEA APPEARS

Statement of Mr. John J. Shea, attorney, Mid-Continental Oil and Gas Association, Tulsa, Okla.:

Mr. Shea. My name is John J. Shea, and my residence is Tulsa, Okla. I am an attorney at law and am engaged in the production of oil. I represent the Mid-Continental Oil and Gas Association, composed of oil producers, refiners, marketers, and prospectors in what is known as the Mid-Continental field, comprising the states of Kansas, Oklahoma, and north Texas. It is a voluntary association, comprising about 1,500 producers and men engaged in the oil business.

Mr. Longworth. So long as we have the tax based on invested capital, ought not the man who puts in the smallest amount pay the highest tax?

Mr. Shea. He probably ought to pay a higher tax, but it ought not to take all of it away from him, which it does; he pays 60 per cent on what he has in there and the other people pay 20 per cent or 15 per cent on what they have in there.

Mr. Longworth. Precisely; and they put in infinitely more.

Mr. Shea. They have put in more money, of course. If you put $5,000 into an enterprise and I put in $10,000, ought you to pay more taxes than I do?

Mr. Longworth. Under a tax based on invested capital, surely.

Mr. Shea. I cannot agree with you. I think there ought to be some way of ascertaining the value of the property and then treat that as capital, and I believe there is no other honest way to do it; there is no other way it can be done fairly to all concerned.

Mr. Longworth. You want the value taken as to what date?

Mr. Shea. When the tax began—the first of the year 1917.

Mr. Longworth. In other words, you would have the value of the property based on an estimate of the value at the time the tax began?

Mr. Shea. Not an estimate, but a sworn appraisement, the same as you make a return of your property in the states for taxation, by sworn appraisals and subject to inspection, revision and correction by the Treasury Department.

The Chairman. You mean based on the net value——

Mr. Shea (interposing). Of each share, when your tax went into effect; yes, sir.

Mr. Sterling. How would you determine that question? By the earning power of the property?

Mr. Shea. That would be one of the things that would enter into it.

Mr. Sterling. If you did that, would you consider 8 per cent as a fair estimate of the earning power?

Mr. Shea. Not in the oil business.

Mr. Sterling. Then how much?

Mr. Shea. At least 15 per cent.

Mr. Longworth. Then there would be practically no excess profits tax?

Mr. Shea. Yes; there would be an excess profits tax to be collected by the Government. If the oil business does not pay more than 15 per cent, it would have to go down because of the irregularities, the uncertainties, the great risk and hazard there is connected with bringing it to the surface and finding it. Oil profits are made by finding oil.

Mr. Longworth. I agree with you that there should be a difference made as to investments in oil, zinc and other risky ventures of that sort, and I think you ought to have a much larger allowance than 7 or 9 per cent, but the moment you advance the proposition that you should only pay an excess profits tax based on the value of the property at the time the tax was assessed you destroy all revenue.

Mr. Shea. I do not agree with you at all. I do not care anything about the rate, and you can fix that by your rate of taxation.

Mr. Longworth. Of course, we might fix a rate of 100 per cent.

Mr. Shea. Let it be 100 per cent or let it be 200 per cent. I do not care what rate it is when you put us on an equality and make others toe the scratch at the same time; then you can start the race whenever you want and make the tax as much as you want.

Mr. Longworth. Put whom on an equality?

Mr. Shea. Everybody.

Mr. Longworth. Does not the tax bear equally on you and everybody else?

Mr. Shea. There is certainly no equality among ourselves, not among the oil producers, and I presume there have been inequalities in other businesses under this law.

Mr. Longworth. In every business there is bound to be some inequality.

Mr. Shea. Yes; but I think it is more overwhelming in this business than in any other business.

JUDGE HAYES TESTIFIES

Mr. Hayes. I am not going to attempt to burden the committee with more than one or two matters. Judge Shea has very generally covered the field. There is one condition and one effect and result that flows from this present act and its application which should be remedied if a way can be found to remedy it, and that does not seem to us at all impossible, and at the same time not diminish or impair the amount of revenue to be received by the Government.

This act operates as a great inequality between the company that goes out and pioneers, takes the long chances and has a small investment to begin with, as against the company that has a settled production, has a large investment and a large capitalization, and an almost uniform rate of income. You may take the example that has been given in the typewritten sheet which has been handed to you and that is fairly illustrative. The Congressman from Ohio propounded a question to Judge Shea that seems to me worthy of noticing, when he asked whether the man who had gone on to the 160 acres and had invested $10,000 and several years of effort and ultimately discovered oil and developed, before this law became effective, a very large valuation for his investment, whether or not he should not be treated upon the same basis as the man who waited until a value was developed and then went in and bought a sure thing at a million and a half dollars with a certainty of no loss in his investment but a reasonable return upon his investment. I say unqualifiedly that the man who takes the chances and who develops the property and discovers that great amount of wealth and makes it available for our country, deserves a consideration upon some other basis than the actual amount of money he put into it that he has a record of, to wit, the $10,000; and if the pioneer in the oil business is to be treated upon that basis in arriving at the amount of excess profits tax he shall pay, solely from the number of dollars he put into it, the small pioneer will be driven out of the business.

For illustration, take the example which is given to you on the typewritten sheet here. A company that has a large capitalization, say, of $3,000,000, and with a regular income, its activities are scattered over a wide area and a wide territory, in some of which it will have losses and in others it will have gains by means of its production and by means of its discoveries, and it has an average income of 25 per cent for four years. You take a pioneer who goes out with a capital, say, of $300,000, and who pioneers and develops for a period of three or four years—and one who goes into new territory generally finds it takes from two to three and a half or four years to make his property a paying property—if he makes a new discovery and is successful in finding oil, he is away from the pipe line and he has to develop it, and ordinarily it is difficult to get supplies and materials necessary for development purposes, and frequently they are located some distance from the railway and freighting facilities are difficult and inconvenient and it is from two and a half to four years before he realizes any great income from his properties. Then he may realize in his fourth year 100 per cent on his property. You will find from the sheet which has been submitted, and which is illustrative, that with 100 per cent in his fourth year he will pay approximately 48 per cent of the entire amount of his profits in the fourth year as an excess profits tax under this law. On the other hand, the company that has eliminated very largely the chances by getting the benefit of the law of averages, having a large investment scattered over a wide area of territory in different fields and having production realizinz 25 per cent a year on his investment for four years, also makes a total income of 100 per cent and is taxed 16.71 per cent under this law as its excess profits tax.

Now, there cannot be any question, after a full study of the act, as it now is, that it operates as a very heavy burden upon the pioneer and the small investor. Then with the high profits tax following, if he discovers oil, it makes it almost impossible for him to dispose of his holdings by way of sale.

I realize that the important point you gentlemen have to consider, and the important feature of this hearing, is finding some method to solve the problem. The difficulty lies in the peculiarities of this industry, and it has conditions surrounding it and has handicaps from the point of view of this legislation that but few, if any, other industry has. They are probably greater than the lead and zinc business. The oil producer, when he finds oil, has got to quickly develop his premises for several reasons. If he does not do so, the man adjoining him will take the oil away from him, because oil is of a fleeting nature and would get away from him. Again, most oil is developed on leases, and if you do not develop your lease immediately and economically, the lessor can forfeit your lease and you lose your property. So you have got to produce the oil and bring it to the earth's surface quickly. You cannot postpone it as you can in some of the other industries. Therefore, that presents a condition that has to be considered, and is one whic is peculiar to the oil industry and does not exist as to other industries.

Now, as to the different methods, Judge

Shea and the other members of the committee have presented in the pamphlet filed with the committee the suggestions of the committee. There appear to be three methods by which this might be handled which seem to us practical. In reference to the method that Judge Shea suggested of valuation, I hardly thought the Congressman from Ohio caught the suggestion of Judge Shea in that respect. The valuation of these properties does not seem to us to present any unfairness; that is, to permit the owner of these various properties, whether he be the discoverer of the oil properties or the purchaser of them, before the law became effective, to have treated as his investment the values of his properties at the time the law became effective. This law became effective as of January 1, 1917. If a man by taking the great hazards of the business prior to that time had developed these values, it occurs to us as a matter of justice and equity that he should have considered as a part of his investment these values which he developed just as much as the man who had gone out and bought the properties after they had been developed before that time or after the values had been discovered; and one of the methods presented to you would be a valuation of these properties as of January 1, 1917, adding thereafter to them the additional capital put into the business.

This, of course, would leave newly discovered properties to suffer some of the inequalities and injustices of the present law, that might be developed subsequent to 1917, and they probably would have to be handled, and should be handled, upon a different basis.

Mr. Longworth. Judge, let me ask you right there, you realize that such a system as you propose applied to industries universally would bring in practically no excess profits taxes at all?

Mr. Hayes. No, I do not recognize that at all, for the very reason that oil properties that have been developed——

Mr. Longworthy (interposing). No; I say, if your system was applied to all industries we would not get practically any excess profits taxes.

Mr. Hayes. That might be true, or at least it might very greatly diminish the revenues.

Mr. Longworth. Precisely; so that your argument is that your particular industry ought to be segregated and a different rule applied to it?

Mr. Hayes. Yes, sir; we take that position.

The Hazard Mfg. Co., of Wilkes Barre, Pa., has just published a very interesting book, which thoroughly describes all kinds of wire rope, giving tables showing diameter, circumference, price per foot, weight per foot, approximate breaking strain in tons, proper working load in tons, and minimum size of drum or sheave in feet. It is an exceedingly valuable publication, and may be had upon request.

EUGENE MEYER, JR.

Who had charge of the non-ferrous metals section of the War Industries Board before he was drafted into the War Finance Corporation.

Lest We Forget!

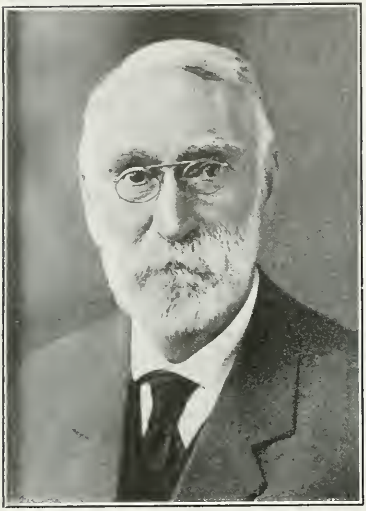
During the Third Liberty Loan campaign there appeared in a New York paper the following advertisement:

"LEST WE FORGET!

"He who can forget the little ones that lie mangled 50 fathoms deep under the shattered hulk of the Lusitania; who has no reverence for the dead and their devotion, no prayer for the dying and their anguish, no pity for the bereaved and the broken; whose blood is not quickened by our perils; whose heart is not softened by our pains; who reads unmoved of blasted homes and wasted countrysides, of desolated cities and desecrated shrines, of heroic Belgium, overrun but not conquered, of epic France and the noble dead that lie buried there—the great dead that fought and the innocent dead that merely wept and waited; he who can forget these things or be indifferent to the sacrifices and the sorrows, the bereavements and the burdens of Freedom's Gethsemanes—that man is a Hun at heart, for the crimes that none but a Hun can commit, none but a Hun can forget!"

After a reading of this, do you not feel more desirous than ever of saving to the utmost of your capacity and of buying War Savings Stamps?

DR. DOUGLAS CROSSES THE GREAT DIVIDE



DR. JAMES DOUGLAS

In the passing of Dr. James Douglas, the mining fraternity loses one of its noted and best beloved members. He had been ill for practically three years, but his condition was not regarded as critical until two months ago. Anemia and other age infirmities caused death.

Dr. Douglas was pre-eminent in both the mining and metallurgical professions. The value of his life work to the mining industry is inestimable and he probably did more than any one else to bring about a clear understanding of the principles underlying the science of metallurgy.

He was first of all a scholar and a gentleman, but he was also a philosopher, philanthropist and teacher. A man of the highest integrity, honored and respected by all who knew him.

Dr. Douglas was born in Canada in 1838, but had resided in the United States since 1875, where he has been prominently identified with the copper mining industry. With the late Dr. T. Sterry Hunt, he did much original and successful work in the hydrometallurgy of copper. He was President of the Copper Queen Consolidated Mining Company, of Arizona, and Chairman of the Board of Directors of the Phelps Dodge Corporation, of which latter concern he was President for many years.

He was an Honorary Life Member of the American Mining Congress in which work he took an active interest, giving his active cooperation and support; he was twice president of the American Institute of Mining Engineers, and belonged to a large number of technical societies.

He was father of Walter Douglas, President of the American Mining Congress, and Head of the Phelps-Dodge Corporation, James S. Douglas, President of the United Verde Extension Mining Company, of Arizona, now in France with the American Red Cross, and of Mrs. Archibald Douglas, of New York.

One of his more recent philanthropies was his interest and support of the Bureau of Mines investigations into the extraction and utilization of radium. Together with Dr. Kelly of the Johns Hopkins Hospital, Baltimore, he made possible the intelligent research work which has resulted in the increased production and reduced cost of radium.

Dr. Douglas has long been regarded as the Dean of the Mining Engineers and his death is a matter of deep regret to all who had the privilege of knowing him.

Back the Government

Few people, indeed, in this country now fail to realize that we are fighting a brutal, relentless enemy. The indictment against the Hun grows stronger every day. He is absolutely devoid of pity or chivalry. An American correspondent reports a conversation with a crippled British officer who, after a long stay in German prison pens, had been exchanged.

The officer told of men so feeble from lack of food and bad conditions as to be able scarcely to stand, being forced to work at the point of a bayonet until they dropped from sheer weakness; of badly set gun-fractured arms and legs; of soldiers buried to the accompaniment of the jeers of German soldiers; of the long journeys of the badly wounded without relief of dressings, food or water; of wounded prisoners marched to exhaustion and then shot down like dogs when they no longer could walk; of prisoners put into camps where typhus raged.

This is the kind of enemy we are fighting, and this is why all of us must get down and put every bit of our strength back of the Government. For one thing, we must buy only those things necessary to maintain ourselves in the most efficient condition. That will give the Government more labor and materials for war purposes. And then with our savings we must buy War Savings Stamps. That will give the Government current funds with which to use labor and materials in the successful prosecution of the war. We must do as President Wilson asks us to do in his message—pledge ourselves to save constantly and to buy regularly government securities. We shall then be doing our part.

PLENTY OF STEEL FOR OIL WELL SUPPLIES

Petroleum Operations Not to Be Limited by Restrictions Being Made in Use of Steel.

In view of the anxiety which has apparently arisen concerning the possible effect upon the oil producing industry of the government action in assuming control of the output of the steel production of the country, the Petroleum War Service Board, at the request of the United States Fuel Administration, calls the attention of the petroleum industry to the following considerations:

1. While it is true that the Government will exercise complete control of the distribution of the country's output of iron and steel, that control will be exercised in behalf of industries and activities essential to winning the war.
2. Production of oil and gas, of all kinds of oil well supplies used in that production or in the pipe-line transportation of the same, has been classed by the War Industries Board as highly essential to the government's program for the prosecution of the war.
3. This action of the War Industries Board, therefore, in arranging to control the distribution of iron and steel, should tend to improve the opportunities of oil producers to fill their requirements, especially in those items in which there has been an acute shortage, such as wire rope, tubular goods and boilers.
4. At the same time it should be thoroughly understood that every pound of steel or other essential commodity that is diverted from use in the building of ships, aeroplanes and munitions has a proportionately retarding effect upon the completion of the government's program, and, therefore, no truly patriotic citizen will consume these valuable commodities wastefully.

The letter of the United States Fuel Administration to the Petroleum War Service Committee is as follows:

"Owing largely to the press reports regarding the action of the War Industries Board in taking over the entire steel production of the country for government requirements and not making clear the point that the term 'government requirements' included all essential requirements not ordered directly by the Government for government use, a wrong impression has been created in the minds of consumers, such as oil producers, for instance, and they seem to think that the action of the War Trade Board is going to have the effect of curtailing and even shutting off completely the supply of these essentials, and this has resulted in more or less of a scramble to cover their requirements on orders in excess of their real needs and also in the hoarding of materials, which, in its turn, results in inequitable distribution and profiteering in price.

"The effect of the action of the War Industries Board should be exactly opposite. The taking over of the steel production by the Government and the allocation of that tonnage to essential industries only is calculated to increase greatly the supply of essential products, and, of course, the production of oil and gas and of all kinds of oil well supplies used in that production or in the pipe-line transportation of same has already been classed by the War Trade Board as highly essential to the government program in the prosecution of the war; therefore, their action is going to be a very great assistance in immediately relieving the shortage that has existed in a few items, such as wire rope, tubular goods and boilers.

"At the same time it should be thoroughly understood that every pound of steel or other essential commodity that is diverted from use in the building of ships, aeroplanes and munitions has a proportionately retarding effect upon the completion of the government's program, and therefore no truly patriotic citizen will consume these valuable commodities wastefully.

"For obvious reasons, we think it highly desirable that this view of the situation be thoroughly and promptly disseminated among the producers, and we know of no better way than to enlist the services of the various etroleum war service boards in this matter. Can we have your assistance?"

Tuckahoe Sets Record

A new fast pace for coastwise commerce has been set by the speed ship Tuckahoe. The famous collier, which was built in the record-breaking time of 37 days, in the first month of her active service, ended June 21, has taken four cargoes of coal from Norfolk and Baltimore to Boston. These four cargoes have totalled approximately 19,000 tons. Two round trips a month have been the average performances of steamers engaged in the New England coal carrying trade. The fastest round trip of the Tuckahoe has been 7 days, as against the average time of 14½ days. The slowest round trip of the Tuckahoe has been 12 days, and this was due to a change of her crew in Boston, delaying her four days in port.

Give our boys in the Army and Navy every fighting chance. Pledge yourself to save to the utmost of your ability and to buy War Savings Stamps.

HERBERT C. HOOVER

Mining engineer who rose to the top of his profession and who has attained even greater achievements as national food administrator.

Additional Coke Regulations.

The United States Fuel Administration issued additional regulations effective June 25 for the better control of coke distribution and fixing prices at which coke may be sold. The order reads:

The maximum price f. o. b. cars at ovens per ton of 2,000 lbs. for coke made in beehive ovens in Cumberland County in the State of Tennessee shall be for blast furnace coke seven dollars and twenty-five cents ($7.25), and for 72 hour selected foundry coke eight dollars and twenty-five cents ($8.25).

The maximum price f. o. b. cars at ovens, per ton of 2,000 lbs. for coke made in beehive ovens at Ansted, West Virginia, shall be for blast furnace coke seven dollars ($7.00), and for 72 hour selected foundry coke eight dollars ($8.00).

The expression "72 hour selected foundry coke" shall include only coke selected in accordance with the usual trade practice for foundry use, and the price named for 72 hours selected foundry coke shall in no case be charged for any shipments to blast furnaces for smelting iron or other metal.

When you buy War Savings Stamps you do not give your money; you loan it at 4 per cent, compounded quarterly. You help your Government, but you help yourself even more.

FUEL FOR BREWERIES RESTRICTED FURTHER

The United States Fuel Administration, after consultation with the War Industries Board, has issued a regulation curtailing the consumption of fuel in breweries to 50 per cent of the average annual amount of fuel consumed at such brewery during the period from January 1, 1915, to December 31, 1917.

Allies' Oil Purchases to be Allocated

"The United States Fuel Administration, through Mark L. Requa, director of the Oil division, today announced the appointment of A. C. Woodman, director of purchases of Lubricants of the oil divisions, and J. A. Moffett, Jr., secretary of the National Petroleum War Service Committee, as a committee to allocate oil purchases for the Allied governments," says a fuel administration statement.

"The object of the appointment of this committee is to accomplish the most equitable distribution of the orders of the Allies for oil supplies throughout the entire industry, and at the same time to make certain to the Allies a prompt and satisfactory source of supply, with as little interference as possible with the requirements of our own industries."

SEELEY MUDD

Active member of the American Mining Congress who is doing important war work.

CONSIDERATION OF WAR MINERALS BILL WAITS

Uncertainty Regarding Recess and the Pressure of Legislation Keep Senate Committee from Drafting Measure.

No formal consideration has been given the war minerals bill by the Senate Committee since the close of the hearings. This has been due largely to the possibility of a summer recess and from the fact that other work of a very pressing nature demanded the attention of most of the members of the committee.

When the printed copies of the Senate Committee's hearings on the War Minerals bill are in print a document of great interest to all mining men will be available. Extracts from these hearings were published in THE MINING CONGRESS JOURNAL last month. Some further excerpts follow:

Dr. Geo. Otis Smith. The English have a phrase of "key industries." They are industries that have a larger value to the nation than their volume would seem to indicate, such as the dye industry, upon which the textile industry depends so largely. I think that there are some minerals that, in a similar way, could be considered "key minerals." It is not so much what is the value of a little chromite or a certain amount of manganese, but the fact that the nation's steel industry depends upon these particular materials, the volume of which and the value of which is insignificant, as compared with the volume and the value of the iron ore and coke that goes to make up the steel, so I think, if you will allow the expression, the strategic value of it, under present circumstances, is quite different from the value, as I define it, based on what the substances would bring in the market.

Senator Shafroth. Don't you recognize that every political economist regards that the attempt to fix a maximum price on anything, unless that maximum price is very high indeed, is so contrary to the principles of political economy that it has proven a failure in about everything that has been undertaken?

Dr. Smith. I have lost faith in maximum prices, except in critical situations where, as you might suggest, there is some possibility of there being restraint of a free market.

I think under such a plan as is proposed in this legislation, it would be contemplated that the administrative officer would represent both the consumer and the producer. In the matter of tungsten, I should not expect a maximum price to be placed upon tungsten ore. I can think of a case where it might be advisable to place a maximum price on ferro-tunstgen. One of the earliest witnesses before the committee, Mr. Moore of St. Louis, brought out the fact that the price of manganese ore had not risen at all in proportion to the price of the derivatives. You will probably remember that the other day one of the witnesses representing the consumers of manganese and the consumers of ferro-manganese, as well as the producers of ferro-manganese, made the statement, in answer to the direct question, that the ore which goes to make up a ton of ferro-manganese had increased or would be increased in value under the proposed scale of prices, which is higher than the present scale of prices, only $100, whereas the current price for ferro-manganese had increased over pre-war prices $200. There is a derivative going up $200 and the ore that goes into that $100. Of course, we must keep in mind that there are other increased costs in that ton of ferro-manganese, but it would be, I think, the function of this administrator to see whether or not it might be necessary to put not only a minimum price on the ore, but a maximum price on the derivative. It might not be necessary, but it would be a matter to be considered. I do not think that he would take any account of placing that maximum price on the manganese ore or tungsten ore. The maximum price fixing is directed simply towards some seller of the commodity, with the idea of protecting the consumer.

Dr. Smith, I think that we are sympathetic with the consumers of pyrite and manganese ore, for instance, in their, what seems to us, rather tardy change of practice by reason of the fact that this was forced upon them by the rather stringent act of the Shipping Board for which there was absolute necessity. All who have studied this problem have not been able to foresee exactly how great the demand would be upon our resources of raw material. It is not simply that the foreign supply of pyrite and of chromite and of manganese has been shut off in part, but the consumption of these materials has increased, so that the burden placed upon the domestic supply is larger than anyone anticipated. On the other hand, I think that the manganese production is increasing rather more rapidly than many thought could be possible in this country.

In those particulars, it is true of all of us that our hindsight is better than our foresight, and even though we realized that there would be some shortage, we could not see and we cannot even now foresee what the shortage may be in sulphuric acid. That is dependent absolutely upon the military demand and there may be at any time a large demand upon one of these materials that forms the basis for some chemical manufacture that will arise by reason of the discovery of a new gas that is needed at the front, or some other material that is needed at the front.

If we compare present day consumption of many of these mineral products with the consumption in 1913 and 1914, we are convinced at once that the extent of our necessity could not be foreseen at that time. There are some materials that have increased in importance in this respect, and others that have decreased.

Take the case of magnesite, of which we expected there would be a decided shortage by reason of the questionable adequacy of the California supply to take the place of that that had been imported from Greece and Austria. That California supply was very largely augmented by the discovery of large deposits of magnesite in 1915, so that in 1917, as has been testified by some of the witnesses here representing the steel industry, they are satisfied with the domestic supply of magnesite for refractory uses.

I would also like to put some emphasis upon what I regard as the stabilizing influence of control. I think with this power given to the government, there would be much less chance of the market going against the ore buyer or the refiner. At least, you could say that the chance of a runaway market would not be greater under government control than it is at present, and that the stabilizing effect would be equally as beneficial to the consumer of these products as to the producer.

I was interested when one of the purchasing agents made the statement that he would prefer, other needs being equal, a domestic supply of his ore, not simply during war times, but after the war. He said he would feel safer the nearer his supply was to his works.

In regard to the details of the legislation, I do not know that I can add anything to what has been or will be said. I think if there is to be this stabilizing influence of the government, whether that is exercised through a corporation, or through the machinery provided in the House bill, there is need of a revolving fund, and I think such a revolving fund should be larger than the amount in the House bill. I have roughly estimated the amount involved in the annual turnover of some of these products, the more important of these minerals mentioned in the bill; that is, taking the value of the imports and of the domestic production, and the amount would be something in excess of $170,000,000. Of course, with a revolving fund, that might be said to represent the maximum that would be needed, but in view of the fact that some of these imported ores come from some distances and there would be needed some time, to finance the operation and the handling of the product from point of production to point of consumption, there could not be many turnovers of the capital inside of the twelve months, but I think that the amount stated in the House bill is quite inadequate, as compared with what might be necessitated in case of need. Of course, whatever amount is appropriated, it would be expected that before the period covered by the legislation, expired most of that would be returned to the Treasury.

The same criticism has been made of the provision which looks towards the possibility of government operation in special cases where a mine is in litigation, or where, by reason of ultra-conservative ownership, or, we might even think, alien ownership, the property does not respond to the present needs for working. I think giving the Government power to operate and take over such a mine is amply justified by the needs as we see them even now. I do not anticipate that there would be a large amount of government operation under such authority, but I do think that if the Government had power to do this there would be some cases in which the owner of the property would be more responsive to the suggestion that his property be operated at once.

Cornelius F. Kelley. I want to say that so far as the Administration officials who are behind this bill are concerned, that there is no question that they enjoy the fullest confidence and highest respect and esteem of the mining profession and the mining industry. We think in that respect we have been particularly fortunate in the Bureau of Mines Directorship, both in its initial stages under Dr. Holmes, and its subsequent development under Dr. Manning. It is, therefore, Mr. Chairman, a matter of rather grave concern to me to be obliged to take a position that is diametrically and directly opposite to that proposed by the proponents of this bill and the Administration bureaus that have sought its enactment.

If we assume that it is necessary to pass some sort of legislation to meet this situation, is this the character of bill that you want to enact into law to stimulate the production and to encourage the development and promotion of enterprise? If this bill will have that effect, it will be the most curious working of a psychological law that I have ever heard of. If you had started out deliberately to do everything that could be done by legislative enactment, in my judgment, to stifle and to strangulate the development of industry, you could have not done it more satisfactorily or more completely than has been done by the incorporation into this bill of some of the provisions of this bill.

The purpose of this bill is to establish a control over the mineral industry. It is said by some of the proponents of the bill that that control is limited to the specific metals, beginning with antimony, on page 1, and ending with the enumeration contained on page 2; that it is not intended to affect the mineral industry, except so far as regulatory regulations and control of these specific minerals or metals is concerned. If that is the purpose of the bill, it is not so stated.

I feel that if you are buying things merely to give a producer a price, and not because the Government has a present or prospective need for the metal, it is the same thing, in my judgment, as guaranteeing a price. I do not think you can do it and get away with it. You are breaking a fundamental economic law when you do it. You may do it and get away with it for a while, but you cannot eat these metals. They come back to the market ultimately, and the price is going to be regulated absolutely by the law of supply and demand. I look at it this way. Much has been said about guaranteeing a minimum price for a period not to exceed two years. In the case of a small deposit, partially opened up, where they have adequate working facilities, a two year contract might be helpful. So far as looking at it in a big way is concerned, a two-year contract would not be of any consequence, because you cannot develop or equip a property in two years. It cannot be done. The ordinary property, where you have got to go down in the ground a considerable distance, cannot be handled in two years. You cannot do it in two years. If the Secretary of the Interior contracts for two years in advance and makes advances to stimulate production, he must take a certain amount of metal from the hands of the producers. He has got that metal and he cannot dispose of it faster than the necessities for the metal arise to take it off his hands. If there is a deficit in production, you do not need that contract. We would not today take a delivery of ferro-manganese to the Steel Corporation. If there is a surplus in production, what are you going to do with the metal as it is delivered? He will hold it until the termination of this law, six months after the war, or until the termination of the contract period. If there is any considerable stock of it in the hands of the Secretary of the Interior, or government officials, it is going to be placed back on the market and it is going to be liquidated and turned back into money and the market has to absorb it. You cannot push water uphill. You cannot defy the law of gravity. You cannot any more sustain a business that is not capable of being sustained by the artifice of a guaranteed price, than you can do anything along those lines. You cannot do any of those things for a continued length of time.

Sundry Civil Bill

In addition to providing funds for carrying on the regular work of the Geological Survey and the Bureau of Mines, the Sundry Civil Bill authorized the licensing of all who handle platinum and associated metals. The licensing will be handled by the machinery already in existence for licensing explosives.

Snead Leaves Fuel Administration.

L. A. Snead, assistant to the United States Fuel Administrator, who was formerly in charge of the Apportionment and Distribution Division of the Fuel Administration, has resigned.

Mr. Snead has given his entire time to the Fuel Administration as a volunteer and retires in order to look after his private interests.

Import License for Copper Revoked

The War Trade Board has revoked all outstanding licenses for the importation of copper ores from overseas, except from Cuba, except for shipments made prior to June 10, 1918. The purpose of this regulation is to bring about the importation of copper matte (copper concentrates), instead of the bulkier crude ore.

Pledge yourself to save to the utmost and to buy a definite amount of War Savings Stamps each month.

ELECTRICITY TO SAVE COAL BURNED AT MINES

Millions of tons of coal, now necessarily consumed in the mining operations, would become available for general commercial uses should electricity be substituted for steam in operating the collieries of the United States. Earnest studies are now being made by experts in Washington and elsewhere to determine what can be done, and quickly, to expand electric power developments throughout the country, not only, nor even primarily in connection with coal production, but also and mainly to meet the urgent requirements of war and other industries.

To Inspect Boiler Plants.

Henderson W. Knott is to manage the field force of engineers and inspectors which is at work among the 250,000 power plants of the country; carrying out a campaign of instruction and inspection designed to bring the use of fuel for the production of power to the highest possible efficiency and economy. Mr. Knott has been the general manager of the Morgan Crucible Company of New York City.

Licenses for Gypsum Revoked

The War Trade Board announces in a new ruling that all outstanding licenses for the importation of gypsum from overseas, except such as may be carried upon sailing vessels or by the barges allocated for that purpose, have been revoked as to ocean shipments on and after June 11, 1918.

No licenses for the importation of plaster rock or gypsum from overseas will be issued except for such shipments as may be carried upon sailing vessels or upon the barges so designated.

Prosecutions Ordered.

Approximately 200 cases involving violations of its orders have been referred by the United States Fuel Administration to the Department of Justice for prosecution.

A large majority of the offenders in these cases are jobbers who have made a profit in excess of that prescribed by the Fuel Administration. There are other cases in which operators have charged more than the government price for coal.

Continues in Office.

H. F. Byrd will continue in office as Federal Fuel Administrator for the State of Virginia. At the urgent solicitation of Fuel Administrator Garfield, Mr. Byrd has consented not to press his resignation tendered some time ago on account of Mr. Byrd's desire to enter military service.

Protect your soldiers with your savings.

MAJ. BENEDICT CROWELL

Authority on Lake Superior ores, doing war work as first assistant Secretary of War.

WOULD MAKE BRITISH THERMAL UNIT STANDARD FOR U. S.

The proposed order of the United States Fuel Administration, to make a universal British thermal unit standard of 528 in the manufacture of gas in the United States, was discussed at a conference held in the office of Mark L. Requa, director of the Oil Division of the Fuel Administration. Representatives of the public utilities commissions of New York, Illinois, Pennsylvania, Maryland, New Jersey, Wisconsin, New Hampshire and Massachusetts were present, together with representatives of the War Department, Counsel of National Defense and the War Service Committees of the gas making industry.

Mr. Requa explained that the purpose of the proposed order was to conserve oil, that the standard as adopted in the proposed order was the same standard as that now in effect in the State of Massachusetts, and that this standard was for all practical purposes, the standard adopted by the French government after an investigation extending over a period of years. The public utilities commissioners present expressed themselves as being entirely willing to cooperate in the Fuel Administration's effort to conserve oil. Several of them requested the privilege of presenting suggestions in writing, which they thought would tend to make the proposed order more definite.

When the question of the price at which gas was to be furnished the public under the new standard came up for discussion, Mr. Requa said the public utilities commissions of the various states should settle that matter for themselves—that the Fuel Administration's principal interest was in reducing oil requirements to the minimum.

The proposed order would supercede all previous standards for candle power and British Thermal Unit value in artificial gas. A British thermal unit is the amount of heat required to raise one pound of water one degree in temperature.

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The object of the appointment of this Committee is to accomplish the most equitable distribution of the orders of the Allies for oil supplies throughout the entire industry, and at the same time to make certain to the Allies a prompt and satisfactory source of supply, with as little interference as possible with the requirements of our own industries.

F. S. PEABODY

Coal mining operator drafted for war service more than a year ago by Secretary Lane. He is still working for the Government at the regular volunteer salary of .00274 cents daily.

INCREASED ATTENTION TO BE GIVEN OIL AND GAS

Bureau of Mines Sees Need for Extending the Service It Is Rendering the Petroleum Industry.

In asking for an increased appropriation for the Petroleum Division of the Bureau of Mines, Van H. Manning, the director, made the following statement to the committee:

"Accurate knowledge of the amounts of refined petroleum products being produced and on hand are now absolutely necessary for the effective conduct of the war. Hence it is desired to extend the work of the Petroleum Division begun during this fiscal year in the collection of petroleum refinery statistics. At present only one man is employed in this work, but the results obtained since July 1 have provided the only authentic statistics that afford the Government and the petroleum industry trustworthy information on the actual amounts of refined petroleum products produced and in storage.

"It has been necessary to collect these statistics almost entirely by correspondence with the refineries. This entails much labor and the statistics are often not forthcoming until several weeks after the request has been sent. To overcome this obvious drawback, petroleum economists should be employed to travel through the fields and collect in person the statistics that now take so long to obtain through correspondence.

"Cooperative work with state governments in the inspection and drilling of producing wells on oil properties, with a view to preventing waste of oil and gas, during the last fiscal year, has been considerably extended, but several states have not been covered yet, and it is believed that the employment of one more practical man thoroughly versed in drilling oil and gas wells will be repaid many times by the value of the results achieved. At present this work is being done in California, Wyoming, Oklahoma, Texas, Louisiana and Illinois, although no continuous effort has been put forth in the last-named state. The method pursued is simply to have the man employed act in an advisory capacity in conjunction with the state officials in drilling oil and gas wells. Thousands of dollars have been saved the people of the country by the conservation methods advocated by these men and by the close inspection of producing and of drilling wells to ascertain the best methods to be used in the different oil and gas districts.

"At present, when more efficient utilization of our resources has become imperative, especial effort should be made, not only to prevent waste of oil and gas, but to insure maximum efficiency of oil and gas and products. For this reason the employment of more assistance is necessary in investigating refinery methods and practices.

"Fuel oil has been adopted to a large extent by the Navy, and it is being used more and more by the merchant marine, the industries, railroads, etc. The railroads alone, it is estimated, will consume during the fiscal year ending June 30, 1918, nearly 50,000,000 barrels of fuel oil. Part of this, of course, is unrefined crude oil. Gasoline is the most important product of crude petroleum and better methods of utilizing it are being studied. More efficient use of all our products of petroleum is necessary, but considerable study is needed before proper recommendations can be made. Heretofore this work has been carried on principally by the chemists of the Bureau of Mines, but in order to put this work on a firmer footing the employment of a fuel-testing engineer is recommended during the next fiscal year. Some fuel testing is now being done in connection with the investigations of the Bureau of Mines to find a more efficient aviation fuel. This work is being conducted in connection with the War Department by the chemists of the bureau, and fuel testing is an important part of it, as the efficiency of a fuel must be determined before the fuel can be recommended for airplane motors.

"The Bureau of Mines is continually looking forward to our future supply of crude oil, for upon it hundreds of industries and, in fact, the successful prosecution of the war depend. It happens that nearly 40 per cent of the petroleum originally available in this country has already been used, yet we are confronting the problem of supplying our European allies with large quantities of petroleum and petroleum products and of meeting the rapidly increasing consumption in this country. Evidently because of the great importance of petroleum in the present war, there can be little question as to which side will be defeated if our petroleum supply is not maintained. Strange as it may seem, the Allies control approximately 96 per cent of the world's production of petroleum, whereas the central powers control only 4 per cent. One would think that the Allies had much the better of the bargain, but this is not true, because serious transportation difficulties confront this country and the Allies in furnishing the battle fronts with the necessary products of petroleum. On the other hand, the battle fronts of the central powers are at no great distance from the oil fields.

"In looking ahead for this necessary supply of petroleum, the bureau is making tests of the most efficient methods of handling the tremendous resources of the West. Undoubtedly the shale-oil industry is to be the next great source of crude oil. At the present rate of consumption, all of the oil remaining in our oil fields, including those on the public domain, is barely enough oil to last us thirty years. Consumption is increasing at a tremendous rate, the needs of the war must be met, hence the date when oil will be distilled from shale in commercial quantities grows nearer and nearer. For the purpose of continuing and extending investigations of oil shale, it is desired to employ additional chemical engineers to make tests to ascertain the most efficient method of obtaining oil from the shale and to study the properties and uses of the products obtained.

"Moreover, on account of the installation of numerous shale plants, the bureau is being called on for practical assistance in selecting the proper type of plant and in starting the operation of these plants. For this purpose it is desired to employ technical engineers to study methods of mining and milling the shale. Thus the bureau will be able to give maximum benefit to the shale industry not only in chemical matters but in the actual erection of shale plants.

"Strange as it may seem to the layman, much laboratory research work should be undertaken immediately to study thoroughly all the different conditions affecting the most economic methods of distilling oil from each type of oil shale. The most important of these conditions are size of grinding, temperature, rate and duration of heating, the admission of steam and of inert gases in the retorts, the effect of distillation under pressure, and of catalytic agents. Such a laboratory investigation will necessarily involve working out methods for analyzing and separating the various products of commercial value. It will require considerable special apparatus, as well as the services of an instrument maker, several chemists, and laboratory aids. Laboratory investigation of this nature is particularly the function of a government bureau, as they will furnish necessary data that will not be supplied by any other agency.

PRESIDENT URGES USE OF CENTRAL LABOR AGENCY

The President recently issued the following statement:

"For more than a year it has been our pride that not our armies and navies only but our whole people are engaged in a righteous war. We have said repeatedly that industry plays as essential and honorable a rôle in this great struggle as do our military armaments. We all recognize the truth of this, but we must also see its necessary implications, namely, that industry, doing a vital task for the nation, must receive the support and assistance of the nation. We must recognize that it is a natural demand—almost a right—of anyone serving his country, whether employer or employe, to know that his service is being used in the most effective manner possible. In the case of labor this wholesome desire has been not a little thwarted owing to the changed conditions which war has created in the labor market.

"There has been much confusion as to essential products. There has been ignorance of conditions; men have gone hundreds of miles in search of a job and wages which they might have found at their doors. Employers holding government contracts of the highest importance have competed for workers with holders of similar contracts, and even with the Government itself, and have conducted expensive campaigns for recruiting labor in sections where the supply of labor was already exhausted. California draws its unskilled labor from as far east as Buffalo, and New York from as far west as the Mississippi. Thus labor has been induced to move fruitlessly from one place to another, congesting the railways and losing both time and money.

"Such a condition is unfair alike to employer and employe, but most of all to the nation itself, whose existence is threatened by any decrease in its productive power. It is obvious that this situation can be clarified and equalized by a central agency—the United States Employment Service of the Department of Labor, with the counsel of the War Labor Policies Board as the voice of all the industrial agencies of the Government. Such a central agency must have sole direction of all recruiting of civilian workers in war work; and, in taking over this great responsibility, must at the same time have power to assure to essential industry an adequate supply of labor, even to the extent of withdrawing workers from nonessential production. It must also protect labor from insincere and thoughtless appeals made to it under the plea of patriotism, and assure it that when it is asked to volunteer in some priority industry the need is real.

"Therefore, I, Woodrow Wilson, President of the United States of America, solemnly urge all employers engaged in war work to refrain after August 1, 1918, from recruiting unskilled labor in any manner except through this central agency. I urge labor to respond as loyally as heretofore to any calls issued by this agency for voluntary enlistment in essential industry. And I ask them both alike to remember that no sacrifice will have been in vain if we are able to prove beyond all question that the highest and best form of efficiency is the spontaneous cooperation of a free people."

All you are asked to do is to buy only necessary things and then loan—not give—your savings to your Government to help it fight your war.

JOHN HAYS HAMMOND

Noted mining engineer who resides in Washington who has been prevented by illness from doing a great deal of war work, but who has been of great service in advising with some of those helping the Government in mining matters.

DOMESTIC USERS MUST SAVE 15,000,000 TONS OF COAL

Fifteen million tons of coal must be saved this year in private residences, apartment houses, churches, schools and commercial buildings other than factories, according to figures made public by the Bureau of Conservation, United States Fuel Administration.

The Fuel Administration is now issuing directions whereby state and county fuel administrators are given a program of action to check up every order for domestic coal and curtail orders for excessive tonnage. No order will be completely filled until approved by the local coal authorities.

This plan has been in operation in Philadelphia for the last six months under the direction of Francis A. Lewis and T. C. Mahady. Mr. Mahady, from the Washington headquarters, will make the work national.

The inspection system exposes the consumer who has deliberately misstated facts on his coal order.

ORDER COAL EARLY AND SPEED UP SHIPPING

"Every consumer of coal in the United States can help speed up the program of the Shipping Board by ordering his coal immediately," said Edward N. Hurley, Chairman of the Shipping Board.

"No one who has the interests of his country at heart," continued Mr. Hurley, "no one who wishes to see the submarine pirates swept from the sea, and the Prussian hordes beaten back from the countries they have devastated, will refuse or neglect to do everything in his power to accomplish those objects."

Increased Production Urged.

To the mine-workers and the representatives if the coal operators, United States Fuel Administrator Garfield has addressed letters urging all to unite in their efforts to do everything possible to increase coal production.

He wrote: "The boys in the trenches are not watching the clock. They haven't the time. They must do the work before they quit. They don't knock off for holidays. They can't. There simply mustn't be any shortages here. However much the coal miners may be doing now, will they not do still more? For I assure you and them that we are at a stage in this war when every shovelful counts."

WALTER DOUGLAS

President of the American Mining Congress.

Index to Advertisers

(Continued from page 5.)

duPont de Nemours Powder Co., The E. I. 12
Electric Service Supplies Company 24
Edison Storage Battery Company Cover
Electric Storage Battery Company 15
Electric Railway Equipment Company 24
Egyptian Timber Company 35
Elmore, G. H 33
Equitable Powder Company, The 12
General Briquetting Company, The 37
General Electric Company 11
Goodall Brothers 45
Goodin, Reid & Company 8
Goodman Mfg. Company 10
Goodrich Rubber Co., The B. F 27
Granville Supply Company 43
Hazard Mfg. Company 14
Hercules Powder Company 13
Hockensmith Wheel & Mine Car Company 29
Hoffman Brothers 45
Holmes & Brothers, Inc., Robert 22
Holloway Co., Willis E 45
Hunt & Company, Robert 39
Illinois Zinc Company 39
Indiana Laboratories Co., Inc., The 45
International High Speed Steel Co 4
Ironton Engine Co., The 9
Irvington Smelting & Refining Works 39
Jeffrey Mfg. Company, The Cover
Laubenstein Mfg. Company 43
Ledoux & Company, Inc 39
Leetonia Tool Company, The 43
Lehigh Coal & Navigation Company, The 50
Longyear Company, E. J 39
Lunkenheimer Company, E. J 43
Macomber & Whyte Rope Company 14
Machinery Warehouse & Sales Co 37
Marioneaux, Stoot & Beck 45
Medart Patent Pulley Co 31
Monongahela Wood Preserving Company 37
Morse Chain Company Cover
Mudd, Seeley W 45
Nicholson & Co., W. H 45
Ohio Brass Company, The 31
Ohio Grease Company, The 35
Pacific Tank & Pipe Company 29
Payne, Henry Mace 45
Pennsylvania Smelting Co 37
Phelps-Dodge Corporation 39
Phillips Mine & Mill Supply Co 20
Pitkin, Lucius, Inc 39
Pneumelectric Machine Co., The 22
Professional Cards 45
Prox Company, The Frank 33
Richard, J. W 45
Roebeling's Sons, John A 14
Ruhl & Stewart 45
Springer, Andrew M 17
Standard Scale & Supply Company 20
Stephens-Adamson Mfg. Company 26
Thorne, Neale & Company, Inc 50
Tout & McCarthy 45
Union Electric Company 29
Vulcan Iron Works 18
Western Chemical Mfg. Company 45
West Virginia Rail Company, The 43
Weir Frog Company 31
Wilmot Engineering Company 43
Wood Equipment Company, The 10
Worthington Pump & Machinery Co 18
Wyoming Shovel Works 3

CENTRAL RECRUITING OF ALL UNSKILLED LABOR IS BEGUN

The War Labor Policies Board authorizes the following:

"Plans for the central recruiting of all labor needed for war industries have now taken definite shape. The United States Employment Service will assume charge of the recruiting of all unskilled labor. This arrangement has been made voluntarily by the interests immediately involved.

"Commenting upon this plan, Felix Frankfurter, chairman of the board, issued the following statement:

"'It is a war measure, designed to stimulate production, to relieve the anxiety of the workers of the country, and to lift the pressure from industry. Already conditions affecting the unskilled workers so essential to the production of ships and munitions of war have become critical. Neither the men nor the plants are capable under existing circumstances of doing their best work prerequisite and preliminary to success at arms.

"'The records of the Department of Labor show that from 25 to 40 per cent of the available common labor is not productively employed. Feverish competition rushes men and women from place to place, with the result that the national energies are wasted and the patriotism of the individual workers frustrated. The labor turnover in the war industries has become intolerably great.

To Restore "Lightless Nights"

The order of the United States Fuel Administration curtailing unnecessary lighting, which will go into effect shortly, is far-reaching. It forbids wasteful practices in outdoor lighting, and especially illumination during the daylight hours. As now proposed, the order restricts display illumination, store-window illumination, electric advertising and other forms of lighting which in ordinary times are considered legitimate merchandising propaganda to four nights a week in the eastern states, where coal is particularly short, and to two nights a week in other parts of the country.

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JULY, 1918

Keeping Up Quality of Coal

To more effectually carry out the orders of the Fuel Administration relative to the clean preparation of coal, twenty-five additional inspectors have been appointed. These additional insectors will operate in the fields out of which is shipped coal for the Atlantic ports. They will be charged with the special duty of providing the highest quality of coal for the use of ships transporting men and materials through the submarine zone, for which purposes it is desirable that only the best coal be furnished. The slowing up of ships in the submarine zone by reason of poor coal is fraught with the gravest danger, and the Fuel Administration will hold all shippers strictly accountable for the quality of coal shipped to tidewater for bunkering purposes.

CARRANZA POSTPONES OIL LAND DECREE

President Carranza, of Mexico, has issued a decree extending until July 31, the time for the presentation of titles and claims by oil land owners and lessors. The decree recites:

"Whereas, the term fixed by article 14 of the impost tax law upon lands and petroleum contracts for the owners and last concessionaires to present before the Department of Industry, Commerce and Labor the manifestations respectively of their non-contracted lands and of those contracted as well is near its expiration, and as it has not been possible yet to present the above manifestations, it has been deemed convenient to give an opportunity to all those interested to take advantage of the preference given by said article postponing prudentially the sanction therein prescribed. In the case that only the last concessionaries may present a manifestation regarding contract lands, as established in said article 14, if these concessionaires do not manifest within the prescribed term, there shall result damage to the previous concessionaires and the proprietors of the petroleum lands. The term prescribed in article 14 of the tax law to make their manifestations and enjoy the preference established in this article, is hereby extended to the following persons until the 31st day of July of the present year:

1. The proprietors of petroleum lands who have not leased them or in any manner contracted for the exploitation of the solid natural hydrocarbons, liquids or gases, and who may wish to exploit them on their own account or to preserve the preferential right for their exploitation.

2. The last concessionaires of the exploitation right by means of the contract referred to in article 1 of said law, which may serve only to preserve the preferential right for the exploitation of the lands which they have contracted.

3. If the last concessionaires of the exploitation right do not present their manifestations within the prescribed term, they shall be considered as deprived of any right of preference, and within the two following months from the date mentioned in article 1 the previous intermediary concessionaires and the proprietors of these contracted lands may file their manifestations, in order that the Department of Industry, Commerce and Labor may give the preference among all the claimants of the last cessionary of the right of exploitation of the sub-surface.

Manifestations made by proprietors or cessionaires that do not comply with the provisions of articles 3 and 4 respectively, shall be rejected.

The tax law of the 19th of February of the present year is declared void in all that may conflict with this decree.

COAL MINES MAINTAIN 12,000,000-TON STRIDE

While the reports of bituminous coal production for the week ended June 22, furnished the Fuel Administration by the United States Geological Survey indicate a sharp decilne compared with the preceding week they still indicate that the mines have adjusted their stride to a basis of 12,000,000 tons a week. This weekly output is not far below the average necessary to provide the tonnage necessary to meet the estimated requirements of the country.

The significant fact is disclosed in the report of working conditions for the week ended June 15, that the record coal production registered during that week, was accomplished without any enlargement of the working forces at the mines. That is to say, the output of the mines was materially enlarged by the individual efforts of the men at work and while the tipples worked approximately 3 per cent less hours in the week, the men were doing more to keep the tipples busy. In view of the efforts being made to enlarge production by appeal to the men to do their best, this indication of their response is gratifying to the Fuel Administration.

The output of soft coal (including lignite and coal made into coke), for the week ended June 22, is estimated at 12,016,000 net tons, a decrease compared with the preceding week of 610,000 net tons or 5 per cent, and an increase over the corresponding week of 1917 of 701,000 net tons or slightly over 6 per cent. Revised figures upon the output for the week of June 15, place the production at 12,626,000 net tons. Former report showed 12,571,000 net tons.

The average production per working day during the week of June 22, is estimated at 2,003,000 net tons, as against 2,104,000 net tons during the previous week, and 1,888,000 net tons during the corresponding week of 1917.

The falling off in production is reported from all producing districts. Shipments from Ohio and Alabama decreased the most, amounting to 7 and 12 per cent, respectively. Central and Western Pennsylvania shipments decreased 4 per cent.

Anthracite shipments for the week of June 22, amounted to 41,170 cars, being a decrease of 790 cars or 1.9 per cent.

A compilation of the bituminous coal production during the present coal year, showing the output by weeks, the percentage of full-time capacity of the mines and the percentage of full-time lost on account of car shortage is as follows:

Week of	Tons	P. C. Full-time output	Percentage of full time lost on account of car shortage
April 6 (Mitchell Day)	9,317,000	61.9	12.5
April 13	10,864,000	70.1	18.1
April 20	11,039,000	72.2	16.2
April 27	11,803,000	74.7	14.4
May 4	11,554,000	75.6	13.1
May 11	11,825,000	76.6	11.2
May 18	11,712,000	77.2	11.9
May 25	11,801,000	75.8	12.1
June 1 (Decoration Day)	10,747,000	70.6	8.4
June 8	12,401,000	82.3	7.8
June 15	12,626,000	79.7	10.9
June 22	12,016,000		
Total for 12 weeks	137,705,000		

WORKING CONDITIONS FOR WEEK OF JUNE 15

During the week of June 15, during which week coal production reached its highest mark, the mines operated up to 79.7 per cent of their full-time output. The percentages of full time lost are accounted for as follows: Car shortage, 10.9 per cent; labor shortage including strikes, 4.7 per cent; mine disability, 3.0 per cent; "no market," 0.3 per cent; all other causes, 1.4 per cent. Compared with the previous week, the mines produced a smaller percentage of their full-time output, though the total production was enlarged. This is attributed to no other cause than actual increase in capacity due to more regular working by individual men. That is to say, although the tipples worked approximately 3 per cent less hours in the week, more men were in the mines producing coal.

Insufficient car supply hampered production in many of the important coal-producing fields, notably Illinois, Ohio, Western

Pennsylvania, Somserset County, High volatile district of West Virginia, Cumberland-Piedmont district, Northeastern Kentucky, and in the western states. Illinois also reported labor shortage. Car shortage based upon full time capacity in some of the districts ranged as high as 28 per cent.

Is Your Life a Hard One?

Do you people at home feel at times that this war has made your life pretty hard? Read what an American correspondent writes about one of our boys who had been doing his duty:

"In a little field hospital west of Montdidier I stopped at the bedside of an American boy, one of those victims of the German mustard gas, with which the Huns are making all their present gains. His eyes were matted with yellow pus and he could not see. His face was terribly burned. His lips were swollen and purple. His whole body had been turned the color of an Indian, and portions of it looked like melted flesh, as though it had been liquefied.

"The fighting had been renewed all along the American lines, and German wounded had begun coming into our hospitals. I said to this soldier:

"'The boys are getting their revenge for you fellows tonight.'

He smiled through his seared lips, and in a voice so faint that I had to bend down to listen, he gasped:

"'God! I wish I was back there with 'em!'"

Do you still think your life a hard one?

Help support that boy and the hundreds of thousands of others doing their duty. Buy War Savings Stamps to the limit of your capacity.

"Government Price" Is Maximum

In order to clear away any misunderstanding that may have been caused by use of the words "government prices" in connection with coal supplied railroads, and explaining that any shipper may sell coal for less than the government price, United States Fuel Administrator Harry A. Garfield has issued the following statement:

"It is represented to me that a misapprehension has arisen in certain quarters as to the meaning of the words 'government price' used in the press notice issued by the Fuel Administration and approved by the Director General of Railroads, on May 24. The government prices for coal are maximum prices, and it follows, as a matter of course, that any consumer, including the railroads, may purchase for less than the government price, provided it it mutually agreeable. The preferential car supply has been discontinued and will not be a consideration of the contract or understanding."

J. E. SPURR

Geologist who just has taken over the direction of the investigation of war minerals being conducted by the Bureau of Mines.

Electric Siren

The Federal siren is an electrically operated sound signaling device, which is made in various sizes, according to the intensity of sound desired. The purpose of the Federal siren is to give a distinctive penetrating warning which will be unmistakable under all conditions. The machines are used for innumerable purposes. The large double-head type instruments are used principally in towns and villages having volunteer fire departments as a general alarm in case of fire to call out their men. The siren makes an ideal instrument for this purpose on account of its peculiar penetrating tone, which cuts through all local noises, giving an unmistakable signal. This size machine is also used quite largely among the mining people, especially in coal fields as a starting and quitting signal. A great many of the modern mines are fully electrically operated and have no means of telling their men the starting and quitting time. The Federal siren is an admirable instrument for this work on account of its peculiar penetrating tone, which is easily recognized through the noise of the other machinery.

C. D. WOLCOTT

Secretary of the Smithsonian Institution, under whose direction an important work in minerals is being done.

More Lightless Nights

The United States Fuel Administration is confronted with the immediate necessity for further conserving coal used in the manufacture of electrical current and illuminating gas.

An order is in preparation which is to take the place of the so-called "lightless night" order of November 13, which was suspended by the Fuel Administrator on May 1 by reason of the daylight saving law, and the fact that the general conservation program of the administration was deemed sufficient notice to the country that coal and the power derived from coal must be conserved in every possible way.

It now appears that in every city and village of the country, from which statistical and other reports have been gathered, electricity is being wasted in large quantities in the production of light for advertising, street, and store illumination, and other similar purposes. The country needs now—and for the whole period of the war will need more coal than it can possibly produce and transport.

Confronted by this condition, the Fuel Administrator will order radical reductions in the quantity of coal consumed in the manufacture of electricity and illuminating gas used for the purposes specified.

Make every day a thrift day and help your Government end the war days.

ALPINE MADE MEMBER OF LABOR POLICIES BOARD

The Secretary of War has appointed John R. Alpine, vice-president of the American Federation of Labor, and president of the United Association of Plumbers and Steamfitters of the United States and Canada, as special advisor to the War Department's representative on the Labor Policies Board.

Mr. Alpine will be advisor to Stanley King, assistant to the Secretary of War, who has been appointed to represent the War Department on the Labor Policies Board.

Mr. Alpine has been a member of the Cantonment Adjustment Commission since its organization in June, 1917. This commission has passed on all controversies arising in the building program of the War Department. In this position he has rendered valuable services to the Government.

New Administrator for Ohio

The United States Fuel Administration announces the appointment of Joseph H. Frantz, of Columbus, as state fuel administrator for Ohio. Mr. Frantz is vice-president of the Columbus Iron and Steel Co., and vice-president of the Ohio Manufacturers' Association. He is president of the North American Steamship Company.

BERNARD BARUCH

Chairman of War Industries Board.

STANDARDIZATION OF WAGES, HOURS, UNDER CONSIDERATION

In view of the conferences now in progress concerning the stabilization of wages, hours and conditions of work, in order to enable America to produce as rapidly as possible the materials urgently needed by the armies overseas, the War Labor Policies Board has appealed to all interests involved to await the formulation of these policies.

Chairman Felix Frankfurter in drawing attention to the request of the Policies Board said:

"The elimination of the lost motion in America war industry is imperative if the men and women of this country are to do their full duty by our fighters in France.

"The standardization of working conditions is the next necessary step in the attainment of this end.

"The Policies Board is proceeding with all speed commensurate with the magnitude of the interest to substitute reasonable and just conditions for the confusion now so costly. It has therefore called upon the departments and boards it represents to refrain from making any changes which would jeopardize the success of the greater war policies. In making this request it assures all concerned that nothing drastic is contemplated and that no affirmative action will be taken until every interest has been properly consulted and every relevant point of view considered. Consultations have already been arranged with the representatives of organized labor, of industrial management, of the governmental departments and all other agencies concerned.

"The following resolution expresses the sense of the Board:

"'Whereas the War Labor Policies Board was appointed to establish harmony in those industrial matters, on which the governmental departments were agreed that there should be unity of action, and

"'Whereas the War Labor Policies Board has now under advisement methods of standardizing wages, hours, and conditions of labor in establishments engaged on war work, and is now, with that dispatch compatible with the importance of the interests involved, conferring on war labor policies with representatives of organized labor, of industrial management, and of governmental departments, and other agencies,

"'Therefore, be it resolved that the War Labor Policies Board urgently requests the departments and boards represented on it to refrain from making changes, pending the standardization now under consideration.

"'Representatives of the Department of Labor, Agricultural Department, Emergency Fleet Corporation, Food Administration, Fuel Administration, Navy Department, U. S. Shipping Board, War Department, and War Industries Board were present.'"

CAMPAIGN TO INCREASE COAL OUTPUT HEADED BY J. B. NEALE

An intensive campaign to increase the production of coal and coke has been inaugurated by the United States Fuel Administration. United States Fuel Administrator Garfield announced the organization of the Production Bureau of the Fuel Administration, to be headed by James B. Neale, who has been acting as anthracite advisor to Mr. Garfield. The new bureau will take over and expand the various Fuel Administration activities directed toward increasing the volume of coal mined and coke produced.

The work in behalf of bituminous production must be greatly speeded up.

Although a weekly average of about 11,700,000 tons of bituminous coal was produced during May, the coal requirements of this war year have increased to a point where a shortage of coal is practically certain. This shortage may reach 50,000,000 tons.

To avoid shortage, the weekly average must be raised about 1,000,000 tons for the rest of the current coal year. That part of the shortage which cannot be met by increasing production must be overcome by conservation and limitation in the use of coal.

The new Production Bureau will undertake to increase the efficiency of individual mines and miners, in both the bituminous and anthracite industry in order to accomplish the greatest possible output with the labor and mining facilities now available. Up to this time the output of coal has been limited by the railroad car service. Through the Production Bureau the Fuel Administration will be prepared to take full advantage of any increase in car service which may be made available.

AUTOMOBILE MANUFACTURE CUT TO 25 PER CENT

Fuel Administrator Garfield states that the general question of curtailing the manufacture of pleasure automobiles is now in the hands of the Steel Section of the War Industries Board. The Fuel Administrator, however, feels responsible to limit the amount of fuel used in the manufacture of pleasure automobiles to whatever extent the national situation demands. Mr. Garfield made it plain even if steel is available for a larger production, he will be compelled to limit the fuel for the manufacture of pleasure automobiles in the season 1918–19 to not over 25 per cent of that consumed for this purpose in the season 1917–18.

This curtailment does not affect the manufacture of trucks or other cars for war use, nor the enormous amount of other war material which the automobile companies have already undertaken for the Government.

JOSEPH LIETER

Whose active intellect frequently is being called upon to help solve the many business problems which confront those in charge of mining work in Washington.

Retail Price in Northwest Cut.

Material reductions in the prices to be paid for bituminous coal by consumers in the Northwest were announced by the United States Fuel Administration. The Fuel Administration issued an order fixing the prices for bituminous coal shipped from any Lake Michigan or Superior dock to purchasers buying in carload lots from June 1, 1918 to April 30, 1919.

Following are the maximum prices f. o. b. cars at the dock: Coal from Youghiogheny, Fairmont, Greensburg, Westmoreland, No. 8 Seam Ohio, and Hocking and Pomeroy fields, lump, $5.80; run of pile, $5.55; screenings, $5.30; Harlan, Thacker, Kenova and Kanawha fields, lump, $6.30; run of pile, $6.05; screenings, $5.80; Pocahontas, New River and Tug River fields, lump, $6.30; run of pile, $6.05; screenings, $6.05.

The former lake dock prices for the fields effected by today's order were:

Youghiogheny, Fairmont, Greensburg and Westmoreland county fields, lump, $6.60; run of vile, $6.40; screenings, $6.20; No. 8 Seam, Eastern Ohio fields-lump, $6.40; run of pile, $6.20; screenings, $6.10; Hocking and Pomeroy, Ohio fields, lump, $6.60; run of pile, $6.40; screenings, $6.20.

The Government needs your money; you need the stamps.

RESTRICTION ON LABOR IMPORTATION REMOVED

To assist in meeting the present shortage in unskilled labor, Secretary of Labor Wilson has issued a departmental order temporarily removing restrictions on the importation of Mexican labor to be used in certain specified occupations.

The order went into effect June 20, and provides that during the present emergency condition Mexicans entering the United States to engage in agricultural pursuits, in railroad section maintenance and in lignite coal mining will be exempt from the head tax, literacy test and contract labor provision imposed by revious rulings.

Monazite on Restricted List

The War Trade Board in a new ruling (W. T. B. R., 145) has placed monazite sand upon the list of restricted imports. All outstanding licenses for its importation have been revoked as to shipments from abroad after June 20, 1918. Special arrangements have been made covering the importation of the minimum necessary quantities required for consumption in the United States during the remainder of the calendar year of 1918.

SAMUEL A. TAYLOR

Prominent member of the Mining Congress who is the engineer adviser to the Fuel Administrator.

IRON ORE PRICE ADVANCED 45 CENTS

Increased Freight Rate and Higher Mining Costs Behind New Quotation for Raw Material

Because the steel requirements of fabricators in the Chicago district and of shipbuilders on the Pacific coast rapidly are outstripping the capacity of mills selling on Chicago basis, and because heavily increased costs of mining iron ore in the Lake Superior region might mean a falling off in ore production, the War Industries Board has made, and the President has approved, two important changes in the list of maximum prices on coke, ore, pig iron, and steel products. Aside from these vital modifications, the present prices are to be continued for the quarter beginning July 1.

These two changes, which were announced following a meeting here of the steel and steel products committee of the American Iron and Steel Institute, pig iron producers and ore interests, with the price-fixing committee of the War Industries Board, are the elimination of Chicago as a basing point on plates, shapes, and bars and the increasing by 45 cents of the base price per gross ton on Lake Superior ore, f. o. b. lower lake ports. While not the only factor, increased freight rates contributed largely to these revisions in the price list. The elimination of the Chicago base was reached with little difficulty compared to the troubles the ore men experienced in winning an advanced price.

Steel manufacturers came to Washington armed only with the request that Pittsburgh be made the sole basing point for plates, shapes, and bars. The independent ore producers were prepared to wage a hard battle for a higher quotation on their product while the pig iron men, already feeling the pinch of the earlier cut of $1 per ton on all grades of iron except foundry, came with the intention of letting the ore men get only as small an increase as possible. Neither the ore or pig iron men would comment on the question, but it is known the ore advance is less than had been hoped.

The ore producers, who were headed by John A. Savage, president of John A. Savage & Co., presented a brief before the price-fixing committee, which previously had been submitted to the iron and steel manufacturers, showing losses, based on the increased freight rates which became effective today, averaging 51.48 cents per ton for the five principal ranges. Upon that fact, the 45 cents advance will reduce the loss of the operators in the Mesabi range to 25.6 cents, in Gogebic to 52.6, in Marquette to 5.6, and in Menominee to 4 cents. Cuyuna producers will operate at a profit of 5.4 cents.

For some time past, in fact, ever since September 22, last year, when the Chicago base was established, there has been dissatisfaction with Chicago as a basing point, dissatisfaction on the part of both eastern and western manufacturers who earlier had believed there would be an advantage in the arrangement. Actual practice, however, has demonstrated that the old recognized custom of basing sales Pittsburgh was more satisfactory. The recent action was simply undoing what was done at the first price meeting, as far as the three products are concerned. The prices now are steel bars, 2.9 cents, shapes, 3 cents, and plates, 3.25 cents, all f. o. b. Pittsburgh.

While the dissatisfaction has long been felt, it really took the McAdoo 25 per cent freight rate advance to bring action on the elimination of the Chicago base, according to opinions here. The maintenance of a single base is believed to work to the advantage of both eastern and western mills. At any rate, the fact that plate and shape makers in the Chicago district have been unable to meet the demands of the western shipyards and the middle western fabricators, and that this excess tonnage has been alloted through the east, showed the unfairness of forcing eastern makers to sell on a western basis.

Freight rates also played an important part in the ore advance. The McAdoo order of 30 cents per net ton from mines to upper lake ports added 33.6 cents per gross ton to the costs of the mine operators who sell f. o. b. lower lake locks. The industries board's agreeing to an increase at all, was with the understanding embodied in the anouncement, that in case of further increase or decrease in rail or lake rates, the ore prices will be modified accordingly. The increase of 45 cents a ton now means an advance of 90 cents per ton in the cost of making pig iron. This is in addition to other pig iron costs and the reducing of the basic pig iron base price from $33 to $32 on April 1.

The official announcement of the changes is as follows:

"The President has approved the agreement made by the price-fixing committee of the War Industries Board with the representatives of the iron ore, pig iron, and steel interests, that the maximum prices now prevailing on iron ore, pig iron, and iron and steel products be continued in effect for the three months ending Sept. 30, 1918, with the following exceptions:

"1. Lake Superior iron ore: Base prices of Lake Superior iron ore delivered to lower lake ports are increased 45 cents per gross ton on and after July 1, 1918, subject to the following condition: These increased prices are based on the advances in rail freight rates effected June 25, 1918, and on the present lake rates and in the event of any increase or decrease in either rail or lake rates said prices shall be increased or decreased accordingly on all deliveries made during the continuance of such increased or decreased freight rates.

"2. On and after July 1, 1918, the basing point for steel bars, shapes, and plates will be Pittsburgh, Pa.

"No new contracts calling for delivery of any of the above commodities or articles on or after Oct. 1, 1918, are to specify a price unless coupled with a clause making the price subject to revision by any authorized United States government agency, so that all deliveries after that date shall not exceed the maximum price then in force, although ordered or contracted for in the meantime. It is expected that all manufacturers and producers will observe the maximum prices now fixed."

E. H. Gary, chairman of the steel committee, was chief spokesman for the steel men. With him were James A. Ferrell, president of the United States Steel Corp.; W. J. Filbert, treasurer of the steel corporation; E. A. S. Clarke, president of the Lackawanna Steel Co.; A. F. Huston, president of the Lukens Steel Co.; J. A. Campbell, president of the Youngstown Sheet & Tube Co.; James A. Burden, president of the Burden Iron Co.; Willis L. King, vice-president of the Jones & Laughlin Steel Co.; L. E. Block, vice-president of the Inland Steel Co.; A. C. Dinkey, president of the Midvale Steel & Ordnance Co.; Eugene G. Grace, president of the Bethlehem Steel Co.; H. G. Dalton, of Pickands, Mather & Co.; James B. Bonner, vice-chairman of the institute's Subcommittee on Distribution; A. A. Fowler, Rogers Brown & Co.; F. J. Hall, vice-president of the Central Iron and Steel Co.; H. G. Moore, of the Keystone Steel & Wire Co.; Clarence H. Howard, of the Commonwealth Steel Co.; Thomas K. Glenn, of the Atlantic Steel Co.; C. D. Dyer, of W. P. Snyder & Co.; E. W. Mudge, of E. W. Mudge & Co.; H. L. Rownd, of the Republic Iron & Steel Co.; J. V. W. Reynders, of the American Tube & Stamping Co.; W. Vernon Phillips, chairman of the subcommittee on scrap; W. H. Smith, of the Tennessee Pig Iron Association, and Roy A. Rainey, and Scott Stewart, of the W. J. Rainey estate.

Robert S. Brookings, chairman of the price-fixing committee, was spokesman of the government group, which was composed of J. Leonard Replogle, steel director; Paul Mackall, assistant to Mr. Replogle; J. C. McLauchlan, chief of the pig iron section; George N. Armsby, of the tin section; P. F. Taussig, of the federal tariff commission; W. B. Colver, of the federal trade commission; Lieut. Col. R. H. Montgomery, and Capt. W. L. McCleary, of the War Department; Commander John Hancock and Lieut. Commander S. R. Fuller, of the Navy Department; W. S. Blauvelt, coke director, and F. J. Herman, his assistant; Alexander Legge and Hugh Frayne, of the War Industries Board; Francis Walker and W. W. Wooster, steel cost accountants of the federal trade commission, and others.

War Savings Stamps help provide that "Force, force to the utmost, force without stint or limit, the righteous and triumphant force which shall make right the law of the world," which President Wilson says must be used against our enemies.

NEW INDUSTRIES BANNED IN CONGESTED EAST

The following is authorized by the War Industries Board, the United States Fuel Administration and the United States Railroad Administration:

A policy has been adopted and made effective for preventing further increase in the volume of war orders and the number of establishments handling them in the area known as the congested manufacturing and transportation district. This district comprises the New England states; eastern and southern New York; Pennsylvania as far west as Williamsport and Altoona; all of New Jersey and Delaware; eastern Maryland, not including Baltimore.

Exceptions to this policy will be made only if unavoidable through inability otherwise to provide for war needs.

The congested district comprises those eastern states in which so large a proportion of war industries is located as to make it difficult to supply all with necessary raw material and fuel. This difficulty obtains because coal for those industries is mined in the territory west of the Allegheny mountains. It must be carried into this congested district by a limited number of railway lines and by ships from Hampton Roads and Baltimore.

The amount of coal, therefore, which can be transported into this congested area during any one season is limited, and is an entirely separate problem from the production of coal. However, much coal is mined in western Pennsylvania, West Virginia, and Ohio, only so much is available for this congested district as the railroads and ships can transport into it.

A careful analysis of the possible coal movement shows that the increased industrial activity in those eastern states has created a requirement for coal which exceeds the limit of possible transportation of coal, plus necessary materials for manufacture. A map of the congested and restricted district has been issued to all government departments.

Gas Coal Restricted to Gas Uses

By an order of the United States Fuel Administration, owners and operators of docks on Lake Michigan or Lake Superior are prohibited from distributing gas coal except to persons engaged in the manufacture of gas or in the operation of by-product coke plants, unless under special permit issued by the Distribution Division of the United States Fuel Administration.

The order further stipulates that no gas coal shipped or distributed from Lake Michigan or Lake Superior docks shall be used for the purpose of generating steam without a similar special permit.

PRIORITY IN COAL DISTRIBUTION IS PUT INTO OPERATION

Plans for the distribution of coal within the various states have been formulated and put into operation by the United States Fuel Administration. This plan is designed to define the responsibility and authority vested in the state fuel administrators for the distribution of the coal allotted to their respective states, subject to general instructions issued from time to time from Washington.

The War Industries Board will decide what consumers shall have preference in securing coal; but the United States Fuel Administration has been asked to assist in the compilation of complete preference lists of obtaining reports and recommendations on individual firms from the state and local fuel administrators.

The crux of the new distribution plan lies in the compilation of these preference lists. All consumers of coal, except domestic consumers, will be recorded under the following classifications:

(a) Railroads.

(b) Army and navy, together with other departments of the federal government.

(c) State and county departments and institutions.

(d) Public utilities.

(e) Retail dealers.

(f) Manufacturing plants on War Industries Board's preference list.

(g) Manufacturing plants not on War Industries Board's preference list.

The first six classes will be given preference in coal shipments in cooperation with the plants of the War Industries Board.

The distribution of coal to consumers in the first two classes will be handled from Washington. Washington will also supervise shipments to a few vitally important plants.

The list of consumers entitled to preference as established by the War Industries Board will be obtained through a questionnaire sent to every manufacturing plant in the country using more than 500 tons of coal annually. This list, when compiled, will furnish to each Fuel Administration district representative in the producing fields which supply the various states, and with these lists to guide them, together with weekly reports which will be required from each manufacturing plant, the state and local fuel administrators and district representatives will give their particular attention to building up proper stocks of coal at all essential war plants.

In order to control the distribution of coal to domestic consumers and industrial plants by retail dealers, the dealers will be required to make a special report to the state fuel administrators, and from these reports deliveries to manufacturing plants not on the preference list can be curtailed when necessary.

Under this plan of distribution, each consumer should arrange for shipments from the same source of supply as last year, if possible. If diversion of coal for the war program, or the zoning system will not permit this, the consumer should make every effort to form new connections, preferably under a contract arrangement, wherever a supply is available, before calling on the state fuel administrators for assistance.

Weekly reports to the state and United States Fuel Administration will show the actual shipments of coal to the various classifications of industries.

The plan is designed to fix definitely the responsibility and authority of the state fuel administrators. It provides for a complete system of reports for interchange of information between consumers of coal, state fuel administrators, district representatives and the United States Fuel Administration.

Complete lists of the preferred industries in every community in every state will be available as soon as the reports are compiled.

Power Plant Saving Campaign Launched

The United States Fuel Administration has announced the appointment of administrative engineers as follows:

Thomas R. Brown, Pittsburgh, for the western half of Pennsylvania. He was formerly special engineer with the Westinghouse Air Brake Company.

George R. Henderson, Philadelphia, for the eastern half of Pennsylvania. He was formerly consulting engineer with the Baldwin Locomotive Works.

Edward N. Trump, New York, for the state of New York. He has been the vice-president of the Solvay Process Company.

W. R. C. Corson, Hartford, for New England. He has been actively engaged in practice as a consulting engineer.

These engineers, with others who are awaiting formal appointment, are in Washington today in consultation with officials of the Fuel Administration in charge of conservation. Others attending the conference, which will go on for several days, are M. S. Hopkins, Columbus, Ohio; O. P. Hood, chief mechanical engineer of the Bureau of Mines, Pittsburgh; Professor H. P. Breckenridge, Yale University, and H. H. Stoek, professor of mine engineering, University of Illinois.

Although the efforts of the Fuel Administration to increase production have resulted in a record output of bituminous coal for the past several weeks, the Fuel Administration is determined to supplement its efforts toward speeding up production by a carefully planned conservation program.

The principal question under consideration at this conference is the waste of coal in the 250,000 industrial power plants of the country, and the means of cutting this waste short off, in order that approximately 20,000,000 tons of coal will be available for war and non-war industry in domestic consumption.

The system extends into all states east of Mississippi River, and all of Louisiana, Missouri, and Minnesota. In laying the foundation for the organization—work which has been in progress for many months—it has been anticipated that this work will be a permanent service of the Government. From 10 to 20 per cent of the coal now used can be saved by correct operation of the steam power plants, using their present equipment, and without the delay or expense involved in the installation of new or improved apparatus.

The administrative engineers will work under the general supervision of state fuel administrators.

The system comprises certain fundamentals as follows: (1) Personal inspection of every power plant in the country; (2) classification and rating of every power plant, based upon the thoroughness of which the owner of the plant conforms to recommendations; (3) responsibility of rating to be based upon reports of inspectors, who will not express opinions, but will collect definite information.

State Fuel Administrators, in their judgment, may entirely or partially shut off the consumption of coal by any needlessly wasteful plant in his territory.

Inspectors are furnished from one or more of the following sources: (A) Inspectors of steam boiler insurance companies; (B) State factory inspectors; (C) engineering students from technical colleges; (D) qualified volunteers.

In this campaign of practical accomplishment the slogan of the Fuel Administration is "Maximum Production with Minimum of Waste," the object being to operate all industries at full capacity but at the same time to make every pound of fuel perform its maximum service in power, light and heat.

New Prices for Tennessee

Tennessee (Blue Gem coal, mined in Campbell county by operators who are members of the Tri-County Blue Gem Coal Operators' Association)—Mine run, \$3.55; prepared sizes, \$3.80; slack or screenings, \$2.40.

The Jeffrey Manufacturing Company has just issued a catalog containing complete information regarding the construction and operation of their Retarding Conveyers. The catalog is beautifully illustrated showing a number of successful installations. The problem of lowering coal from inaccessible places on the mountain side to tipple or loading tracks is a simple problem when the Jeffrey system is used. Practically no power is required to operate it and no skilled operator is required. A free copy may be obtained by users of coal mining equipment by writing to the Jeffrey Mfg. Company, 958 North Fourth St., Columbus, Ohio.

INDUSTRIES URGED TO FILL QUESTIONNAIRES PROMPTLY

The United States Fuel Administration through its Distribution Division is urging all industrial concerns using five hundred tons or more of coal annually to be prompt in filling the questionnaire that has been sent to them, as, without this information, the State Fuel Administrators cannot list them properly.

The purpose of the questionnaire is to settle without dispute what industries are entitled to places on the preference list which, according to Judge Edwin B. Parker, Priorities Commissioner of the War Industries Board, will be served with coal in amounts sufficient to take care of their current requirements before any distribution to other customers is made.

The preference list already established by the War Industries Board is being re-classified so as to establish degrees of preference. The first degree of preference has already been determined and includes railroad fuel, steamship bunkers, exclusive of pleasure craft, and by-product plants. The second, third and fourth degrees of preference are for the present being considered as one group only, and no differentiation will be made between them until the complete reclassification has been made.

Delay in furnishing the information asked for in the questionnaire forces delay in completing the new preference lists and this, in turn, delays the proper working of the distribution plan. Only to those plants which make the reports asked for, promptly, can the coal necessary for continued operation be assured.

Preparing for Gasolene Conservation.

The United States Fuel Administration, through Mark L. Requa, director of the Oil Division, has issued the following statement in regard to gasolene:

"Up to the present time there has been sufficient supply of gasolene to meet all requirements; but in order to be prepared for any shortage, should it arise, plans are being considered by the Oil Division of the Fuel Administration, in cooperation with the automobile industry and the National Petroleum War Service Committee, for the purpose of determining the most satisfactory method of gasolene conservation.

"It is not expected in any event that it will be necessary to restrict normal consumption for freight vehicles; and provided there is a reasonable conservation by all concerned, it may not be necessary to seriously interfere with pleasure cars and motor boats.

"It must be borne in mind, however, that the paramount use for gasolene is for war purposes, all of which requirements will be supplied. The volume of this will largely govern the situation.

"It seems possible that rational conservation by the public will render g overnment action unnecessary."

The philosophy of the W. S. S. is save, save, save.

MINERAL PRODUCTS MUST PAY HIGHER FREIGHT RATES

The following is an abstract from the order increasing freight rates:

(a) Commodity rates, both interstate and intrastate, on the following articles, applicable on carloads, except as otherwise provided, shall be increased by the amounts set opposite each:

Commodities.	*Increases.*
Coal—	
Where rate is 0 to 49 cents per ton	15 cents per net ton of 2,000 pounds
Where rate is 50 to 99 cents per ton	20 cents per net ton of 2,000 pounds
Where rate is $1 to $1.99 per ton	30 cents per net ton of 2,000 pounds
Where rate is $2 to $2.99 per ton	40 cents per net ton of 2,000 pounds
Where rate is $3 or higher per ton	50 cents per net ton of 2,000 pounds

Where rates have not been increased since June 1, 1917, the increase to be made now shall be determined by first adding to the present rate fifteen (15) cents per ton, net or gross as rated, or if an increase of less than fifteen (15) cents per ton, net or gross as rated, has been made since that date, then by first adding to the present rate the difference between the amount of that increase and fifteen (15) cents per ton, net or gross as rated; and to the rates so constructed the above increases shall now be added.

Where rates from producing points or to destinations have been based on fixed differentials in cents per ton, such differentials to be maintained, the increase to be figured on the highest rated point or group.

Commodities.	*Increases.*
Coke—	
Where rate is 0 to 49 cents per ton	15 cents per net ton of 2,000 pounds
Where rate is 50 to 99 cents per ton	25 cents per net ton of 2,000 pounds
Where rate is $1 to $1.99 per net ton	40 cents per net ton of 2,000 pounds
Where rate is $2 to $2.99 per net ton	60 cents per net ton of 2,000 pounds
Where rate is $3 or higher per ton	75 cents per net ton of 2,000 pounds

Where rates have not been increased since June 1, 1917, the increase to be made now shall be determined by first adding to the present rate fifteen (15) cents per ton, net or gross as rated, or if an increase of less than fifteen (15) cents per ton, net or gross as rated, has been made since that date, then by first adding to the present rate the difference between the amount of that increase and fifteen (15) cents per ton, net or gross as rated; and to the rates so constructed the above increases shall now be added.

Where rates from producing points or to destinations have been based on fixed differentials in cents per ton, such differentials to be maintained, the increase to be figured on the highest rated point or group.

Commodities.	*Increases.*
Ores, iron	30 cents per net ton of 2,000 pounds; except that no increase shall be made in the rates on ex-lake ore that has paid one increased rail rate before reaching lake vessel.
Bullion, base (copper or lead), pig or slab, and other smelter products	Twenty-five (25) per cent, except—

1. That rates from producing points in the states of Arizona, California, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, and Washington to New York, N. Y., shall be sixteen dollars and fifty cents ($16.50) per net ton with established differentials to other Atlantic seaboard points; and
2. Rates from points in Colorado and El Paso, Tex., to Atlantic seaboard points shall be increased six dollars and fifty cents ($6.50) per net ton.

Separately established rates used as factors in making through rates to the Atlantic seaboard shall be increased in amounts sufficient to protect the through rates as above increased.

Montana's Fuel Administrator

United States Fuel Administration announces the appointment of Martin Gerry as Fuel Administrator for Montana. Mr. Gerry is a civil engineer of high standing and has been acting as chairman of the fuel committee of Helena, Montana.

MINING ENGINEERS MEET AT DINNER

War Problems Discussed when Men Prominently Affiliated with the Industry are Guests of American Institute of Mining Engineers.

Mining matters pertaining to the war were discussed at a dinner held in Washington last month. The affair was arranged by the American Institute of Mining Engineers with Van H. Manning, director of the Bureau of Mines in direct charge. As many matters of military value had to be discussed the press was not admitted. The list of guests is as follows:

F. S. Peabody, Toastmaster; H. C. Hoover, Benedict Crowell, Mark L. Requa, R. V. Norris, Sidney J. Jennings, W. L. Saunders, Raymond F. Bacon, Pope Yeatman, A. R. Ledoux, W. R. Ingalls, D. W. Brunton, F. G. Cottrell, H. S. Drinker, Henry M. Howe, Charles F. Rand, R. M. Raymond, J. W. Richards, B. B. Thayer, P. N. Moore, George D. Barron, Edwin Ludlow, Bradley Stoughton, Hennen Jennings, Walter H. Aldridge, R. M. Catlin, J. V. N. Dorr, Karl Eilers, Van H. Manning, Edgar Rickard, J. Morgan Clements, George Otis Smith, E. W, Parker, C. W. Merrill, Thomas T. Read, George S. Rice, C. H. McDowell, George K. Burgess. Oliver Bowles, D. A. Lyon, Philip S. Smith, D. F. Hewett, George Steiger, F. F. Grout, E. W. Shaw, N. H. Darton, J. B. Umpleby, H. Foster Bain, Edson S. Bastin, H. C. Morris, E. F. Burchard, W. C. Phalen, Major, J. C. Scrugham, J. E. Pegue, E. E. Olcott, Chester Naramore, Sidney Paige, Paul M. Tyler, Richard H. Vail, Alfred G. White. A. H. Fay, F. L. Garrison, E. M. Chance, H. R' Putnam, Lieut. W. H. Whittier, G. S. Holmquist, R. R. Hornor, J. M. Hill, Spencer R. Logan, G. W. Coggeshall, Lieut. R. D. Willets H. G. Moulton, W. R. Whitney, C. K. McDonald, C. K. Leith, Major C. M. Berrion, C. A. Herbert, Capt. H. W. Edmondson, Frederic E. Wright, F. W. Paine, J. E. Johnson, Jr., A. C. Leisenring, E. C. Harder, Lieut. R. E. McConnell, Prof. B. L. Miller, C. O. Lindberg, J. E. Spurr, H. A. Beuhler, Lieut. C. H. Palmer, Jr., Edmond Newton, H. S. Mudd, H. F. Bain, H. D. McCaskey, Jay P. Wood, W. H. Lanagan, Fred H. Legge, Louis M. Zach, Toner Antisell, Clyde P. Ross, W. Murray Sanders, Spencer Miller, W. A. Cowan, A. D. Groff, Geo. H. McCarty, F. W. McNair, Geo. Armsby, Thos. C. Cranwell, G. H. Ashley, Col. O. L. Perry, Captain Berry, Gardner F. Williams, B. S. Butler, David White, Thomas Cox, W. A. Williams.

The Ironton Engine Company, Ironton, Ohio has published a most comprehensive and attractive booklet concerning storage battery locomotives. It is illustrated and shows all parts and accessories for locomotives. The booklet is handsomely printed and copies may be had upon request.

D. W. BRUNTON

David William Brunton, former president of the American Mining Congress, now is head of the committee of engineers which acts in connection with the Inventions Board of the War Department.

Mr. Brunton was born in Ayr, Canada, June 11, 1849, and received his preliminary education in Toronto. He then began the study of mining engineering at the University of Michigan.

He first came before the public eye through his mining work at Aspen, when he founded the sampling house of Taylor & Brunton. Many mills in this country, Canada and Mexico were built by him, and he soon became recognized as an authority on mining problems.

Mr. Brunton is a member of the Royal Geographical Society, of the Colorado Scientific Society, and many other scientific and engineering associations.

Mr. Brunton served with distinction upon the Board of Directors of the American Mining Congress for a number of years, and was elected president in 1912 at the Spokane convention, to which he was appointed as special government delegate by President Taft.

Previous to the appointment, Mr. Brunton had given four inventions to the war department. Most of his other inventions are concerned only with the mining industry. The Brunton pocket mine transit is, perhaps, the best known of his products.

CURRENT FEDERAL LEGISLATION

Bills of interest to the mining industry which have been introduced since our last report are as follows:

S. 4701, by Mr. Owen.—Making punishable during the time the United States is at war, lurking or trespassing upon or about the premises of any oil refinery, oil-tank farm, oil pipe line, oil well, gasoline plant, etc., without lawful right. Persons convicted of such unlawful act to be fined not more than $100 or imprisoned not more than one year, or both. Referrred to Committee on the Judiciary.

S. 4738, by Mr. Lewis.—Authorizing the President to purchase an acreage of coal lands, not to exceed 125,000 acres, to contain average recoverable coal tonnage of 7,000 tons per acre, at not to exceed 2 cents per ton, to be acquired in the state of West Virginia. The bill also authorizes the President, in connection therewith, to purchase the property of the Virginian Railway Company. Coal mined from the above-mentioned lands to supply the Army and Navy; the purchase of the railway to insure prompt and adequate delivery. The appropriation for carrying out the purposes of this bill not to exceed $115,000,000. Referred to Committee on Interstate Commerce.

S. 4760, by Mr. Kenyon.—To deny the use of mails to persons or concerns employing child labor in a mine or quarry under the age of 16 years, or in any mill, cannery, workshop, factory or manufacturing establishment children under the age of 14 years. Mail addressed to persons employing children under the specified ages to be so stamped and returned to writer. Bill referred to Committee on Postoffices and Post Roads.

S. 4671, by Mr. Owen.—To prevent interstate or foreign commerce of any article or commodity the product of any mine or quarry which is the product of children under the age of 16; or any article or commodity of any mill, cannery, workshop, factory, etc., the product of children under the age of 14. Referred to Committee on Interstate Commerce.

H. R. 12210, by Mr. Sulzer.—Authorizing the Secretary of the Interior, in his discretion, to restore to entry and dispose of such reserved spaces of land in Alaska as are deemed by him as not necessary for harborage uses and purposes. Referred to Committee on Public Lands.

H. R. 12031, by Mr. Smith of Idaho.—To give preference right of employment on construction work on United States reclamation projects and preference right of entry on the public lands within such projects to honorably discharged soldiers, sailors and marines.

H. R. 11984, by Mr. Helm.—Providing for the fourteenth and subsequent decennial censuses, which will include a census of mines and quarries of the United States. It will cover the name and location of each establishment, character of organization, whether individual, corporate or other form, amount of capital actually invested, number of proprietors, firm members, copartners and officers, and the amount of their salaries; number of employes and the amount of their wages; quantities and cost of materials used in manufactures; principal miscellaneous expenses; quantity and value of products; time in operation during the year; character and quantity of power used, and character and number of machines employed. Referred to Committee on the Census.

H. R. 12453, by Mr. Mason.—That for all persons employed in any mine or quarry under the age of 16 years, the employer shall pay to the United States $2 per day for each day for each person so employed. Referred to the Committee on Labor.

"AND—STILL GOING"

TO ALL TO WHOM THESE 'ERE PRESENTS MAY COME.

Greetings, Health and Apostolic Benediction

The purpose hereof is to proclaim, announce and also give notice, that from about the 20th of June until about the 5th of July, I shall as a rule, not be "on deck" at the office in the Underwood Building. My whereabouts will be as difficult to locate as I can make it except to one or two who may be with me; they, however, will probably, know that I am somewhere in their vicinity every waking minute.

The proximate cause of this announcement is that, between the aforesaid dates I will try to "get by" the 70th milepost on the Journey from Whence to Whither—my baptismal record being kept in Watervliet N., Y., dated July 1st, 1848, and indicating that my discovery of America on the banks of the Hudson took place some days previously.

So "fur" the "going" has been good—that is to say, purty good; some rocky road; some corduroy; some swamp and some hill-climbing and some heart-breaking dead-level sandy wash and a pitiless sun that just wouldn't set but seemed to stand still in a brazen sky at times. But on the whole probably better'n I deserved, and, ef I do say it as shouldn't better, a great deal better than that of a good many wayfaring men I have met who deserved better than they got. So I have no cause for complaint and am blessed with abundant reason for rejoicing, for thankfulness to the Giver of all good; for health for hopeful and helpful companionship, for the blessings of Emancipation from many things more than once foolishly desired until granted, then graciously withdrawn, leaving me disciplined, disappointed, and sometimes bewildered; but in the end with sorrow and regret turned to gladness and interior peace.

During this 70-year Journey, I shall have worked, man and boy, sixty years; and calling the Journey the "Week of Years," of which the Book speaks and each decade thereof a Day, I shall have worked six full days of the Week. And I think if I keep at my tasks twenty years more, spending in leisurely fashion the afternoon of the Sixth Day, I will be putting in a little overtime, and should thereafter be entitled to a Sabbatical period, to do the things I like and enjoy doing, thus keeping busy, and I trust useful up to the end. Faithfully,

June 20th, 1918. D. M. Riordan.

COPPER PRICE ADVANCED TO TWENTY-SIX CENTS

New Price Went Into Effect July 2 and Will Continue Until August 15.

Subject to the approval of the President, the Price Fixing Committee of the War Industries Board, in conference with representatives of the industry, has fixed the price of copper at 26 cents per pound, an advance from 23½ cents, the price formerly fixed.

The new price goes into effect July 2, and will continue until August 15.

MINING CORPORATIONS PAY 9.22 PER CENT OF INCOME TAX

All mining corporations, totaling 11,968, of which 5,393, or 45.06 per cent, operated at a profit during 1916, according to an income tax statement from the Treasury. More than half of all corporations engaged in mining—54.94 per cent, to be exact—lost money during the year. The profits of the successful companies, of course, are far in excess of the losses of the unsuccessful ones, the figures being $798,883,349 net profits for 5,393 corporations and losses of $70,773,408 for 6,575 companies. Mining corporations paid 9.22 per cent of the total income tax.

The total gross receipts for all coal producing corporations reporting to the Treasury for the year aggregated $760,228,187. Of this sum, the 1,833 companies operating at a profit received $674,408,541, and the 865 companies operating at a loss received $85,819,646. Figures covering the operations of the corporations which made a profit are as follows: Gross income, $674,408,541; total deductions (operating expenses, etc.), $553,325,711; net income, $121,082,830. On the net income there was paid a normal tax (the only tax then imposed by the Federal Government, as the period antedates the war revenue law of 1917) of $2,399,000.

Companies operating at a loss reported gross income of $85,819,646, expenses of $104,541,980, and a deficit of $18,722,336. The net income, therefore, of all coal producing corporations reporting to the Government for the period was $102,360,494.

The activities of coal producing corporations in some of the chief coal states are thus reported: Alabama, 51 companies operated at a profit, 30 at a loss; Arkansas, 10 companies operated at a profit, 17 at a loss; Colorado, 53 companies at a profit, 54 at a loss; Illinois, 169 at a profit, 76 at a loss; Indiana, 75 at a profit, 23 at a loss; Iowa, 52 at a profit, 33 at a loss; Kentucky, 131 at a profit, 48 at a loss; Missouri, 67 at a profit, 30 at a loss; Montana, 10 at a profit of $23,801, 9 at a loss of $46,614 showing a deficit for all companies of $22,813; Ohio, 161 at a profit, 57 at a loss; Oklahoma, 25 at a profit, 16 at a loss; Pennsylvania, 441 at a profit of $45,627,760, and 203 at a loss of $12,062,577, showing a net profit of $33,565,183 for the industry in the state, or approximately $50,000 for each company engaged in mining coal; Tennessee, 57 at a profit and 34 at a loss; Texas, 11 at a profit, 14 at a loss; Utah, 13 at a profit, 6 at a loss; Virginia, 29 at a profit, 15 at a loss; Washington, 14 at a profit, 22 at a loss; West Virginia, 321 at a profit, 83 at a loss; Wyoming, 12 at a profit and 6 at a loss.

PLATINUM SITUATION CAUSE OF APPREHENSION

The newest type of slacker, and one who is doing his country a great amount of harm, is the man or woman who buys or even encourages the purchase of platinum jewelry, according to the Bureau of Mines, Department of the Interior. For the country is and for many years will be desperately in need of the scarce and precious platinum in its industrial work, and must have it if the war machine is to go full speed ahead.

A plan proposed by the federal officials would stop the use of platinum in jewelry, not only for the war but for all time. Officials of the Government who are in close touch with the situation are filled with apprehension as to the future supply of platinum. As far as can be learned, it is believed that, aside from the large amount of platinum metals in the form of manufactured jewelry, a large part of which is in private ownership, there is less than 25 per cent of the normal stock of unmanufactured platinum in this country available for the needs of the war.

Bureau of Gas Plants Created.

Announcement has been made by Fuel Administrator H. A. Garfield of the appointment of James T. Lind, of Detroit, Michigan, as director of the Bureau of Gas Plants in the Fuel Administration.

This is a newly created branch of the Fuel Administration which will have supervision of the regulation of the artificial gas industry, in so far as it affects the consumption of fuel.

Mr. Lind has for a number of years been the president of the National Commercial Gas Association. He has wide experience in the business, having been associated with the industry on both technical and commercial sides, since 1880. He is thoroughly familiar with every branch of the business, and is widely known and generally recognized as an authority upon subjects relative thereto.

He recently retired from active business pursuits, but freely consented to renew his activities to respond to the call of the government.

GAS MASKS NOT SUITED FOR USE IN MINE GASES

Mining men who are familiar with the oxygen mine rescue apparatus used by rescue men at mine explosions have been making inquiries of the Bureau of Mines as to whether or not the military masks worn by the soldiers as a guard against poison gas attacks would not be serviceable at mine disasters. The military mask is so much lighter in weight and therefore so much easier carried that the miners are wondering if they cannot be used instead of the heavier oxygen mine rescue apparatus.

In answering queries of this character Mr. George S. Rice, Chief Mining Engineer of the Bureau, has the following to say:

"Military gases which may be discharged from pipe, or in later usage through the agency of shells, are poisonous in character, and perhaps may be immediately irritating to the eyes and skin. On the other hand, these gases being discharged in the open air are rapidly diluted so that high concentrations are generally only momentary except in dugouts which must be cleared by fanning out. Moreover, there is never a material deficiency in oxygen.

"The mine atmosphere after explosions or during fires contain the highly poisonous carbon monoxide gas, one of the most difficult gases to absorb chemically, and may be in high degrees of concentration for a long period, and also what is more important, there is usually so serious a deficiency in oxygen particularly after explosions that even if there were no poisonous gas present a man could not live.

"It is self-evident, therefore, that the purpose of the military mask is to absorb the poisonous gases present and these gases are sometimes very complicated in composition and a great variety of them are used. The supplying of oxygen other than atmospheric oxygen is not necessary. On the other hand, the first requisite of the mine rescue apparatus which is used at the military front in tunneling operations compels the supply of sufficient oxygen, viz: 20 per cent of the atmosphere and the exclusion of high concentrations of gases. Hence the necessity of having the apparatus self-contained shutting off all the external atmosphere.

"It may further aid in explaining the situation to state that very large numbers of the regular oxygen mine rescue apparatus are being used both by the enemy and the Allies of the United States in tunnelling and centra-tunnelling operations as well as other special purposes.

"A third service requiring special apparatus is the Aviation Service. There are no poisonous gases to contend with, but the need is for oxygen to supply the deficiency at high altitudes. The conditions are special and the apparatus would be of no use for any other service.

"It will, therefore, be seen that so far as mine rescue and mine recovery work is concerned it is idle to consider that the military masks could be used as a substitute; they are of no value for the purpose, although with certain changes a commercial form may be developed which may be adaptable for use in special gases or vapors in metallurgical plants. Mr. G. A. Burrell of the Bureau is now working out the problem of such a commercial mask, but it must be understood that special absorbents will be required for special gases which calls for a knowledge of the exact atmosphere in which the men who would use the masks would work."

War Substitutes

Economy for Waste.
Cooperation for Criticism.
Knowledge of Prices for Gossip About Profits.
Cornmeal and Oatmeal for Wheat Flour.
Fish for Beef and Bacon.
Vegetable Oils for Animal Fats.
The Garden Hoe for the Golf Stick.
Performance for Argument.
Service for Sneers.
Patriotic Push for Peevish Puerilities.
Perishable for Preservable Foods.
Greater Production for a German Peace.
The Beef You Do Not Eat for the Rifle You Cannot Carry.
Conservation for Conversation.
Common Sense for Common Gossip.
Marketing for Telephoning.
Production for Pessimism.

IMPORTS OF CHROME ORE ARE CUT TO 53,500 TONS

In pursuance of the general policy of tonnage conservation, the War Trade Board has introduced restrictions upon the importation of chrome ore and chromite from overseas in a new ruling (W. T. B. R., 129). The sources of the home supply are numerous and are believed to be capable of extensive development. To provide for interim demands, pending the further development of such deposits, imports from Cuba, Guatemala, Newfoundland and Brazil by sea will be permitted, not exceeding 43,500 tons up to March 31, 1919, and from New Caledonia up to 10,000 tons prior to December 31, 1918. Shipments overland or by lake from Canada, overland from Mexico, or as return cargo from European ports when coming from convenient ports and not involving delays in loading, will be permitted. All outstanding licenses for the import of chrome ore and chromite for overseas have been revoked as to shipments made after June 15, 1918.

PLAN FOR PRIORITY IN STEEL SUPPLY IS PUT INTO EFFECT

The War Industries Board has adopted the following:

"Be it resolved, by the War Industries Board, That the following agreement, reached as a result of several conferences between a committee of this board and the American Iron and Steel Institute, be and the same is hereby ratified, confirmed and approved, to become effective at once:

"Whereas, a careful study of the sources of supply in connection with the present and rapidly increasing direct and indirect war requirements for iron and steel products has convinced the War Industries Board of the necessity for (1) a strict conservation of the available supply of iron and steel products, on the one hand, and (2) the expansion of existing sources and development of new sources of supply of iron and steel products, on the other hand; and,

"Whereas, the producers of iron and iron and steel products in the main concur in this conclusion reached by the said board, and have expressed their willingness to whole-heartedly cooperate with the said board in its efforts to provide for promptly meeting the direct and indirect war requirements of the United States and its Allies for iron and steel products;

"Now, therefore, it is understood and agreed by the Comittee on Steel and Steel Products of the American Iron and Steel Institute and the War Industries Board that no pig iron or steel manufactured products shall be shipped or delivered, except as follows:

"(1) By priority certificates issued by the Priorities Division of the War Industries Board; or

"(2) After priority certificates shall have been issued for or filled, then producers of pig iron and of steel manufactured products may utilize such raw materials and manufacturing capacity, if any, as they may have available, to fill orders of their customers not covered by priority certificates, provided such orders are embraced within the schedule of purposes entitled to preference treatment as determined by the Priorities Board, as follows:

"Ships.—Including destroyers and submarine chasers.

"Aircraft.

"Munitions, Military and Naval Supplies and Operations.—Building construction for government needs. Equipment for same.

"Fuel.—Domestic consumption. Manufacturing necessities named herein. Foodstuffs for human consumption and plants handling same. Feeding stuffs for domestic fowls and animals, and plants handling same.

"Food and Collateral Industries.—All tools, utensils, implements, machinery and equipment required for production, harvesting and distribution, milling, preparing, canning and refining foods and feeds, such as seeds of foods and feeds, binder twine, etc. Products of collateral industries, such as fertilizer, fertilizer ingredients, insecticides and fungicides. Containers for foods and feeds. Collateral products. Materials and equipment for preservation of foods and feeds, such as ammonia and other refrigeration supplies, including ice.

"Clothing.—For civilian population.

"Railroad or other necessary transportation equipment, including water transportation.

"Public utilities serving war industries, Army, Navy and civilian population.

"Provided, however, whenever the Priorities Board shall have promulgated and certified for observance to the producers of pig iron and steel manufactured products a revised preference list, no surplus materials or capacity after filling or providing for all orders covered by priority certificates shall be used to fill non-priority orders, save such as are placed by industries or plants embraced within such preference list; and,

"Resolved, further, That each producer of pig iron and steel manufactured products shall at the end of each week, ending with midnight Saturday thereof, prepare and forward to the Director of Steel Supply of the War Industries Board a detailed statement of all shipments made during such week not covered by priority certificates.

Be it further resolved that should any producer of pig iron or of steel manufactured products have any surplus was material or manufacturing capacity after filling (a) all orders covered by priority certificates and (b) all orders embraced within the schedule of purposes entitled to preference treatment or placed by industries or plants embraced within the revised preference list, after it shall have been promulgated and certified by the Priorities Board, then in such even such surplus materials or capacity may be disposed of by such producer or manufacturer to other customers subject to the approval in writing of the Director of Steel Supply first had and obtained.

Bt it further resolved that the Director of Steel Supply and a committee appointed by the American Iron and Steel Institute shall jointly makea careful study of the present and prospective iron and steel requirements of each and every department and agency of the Government of the United States and of its Allies, and the capacity of the iron producing and steel manufacturing plants of the United States to meet such requirements and present to this Board as early as racticable (1) a report of their findings together with (2) recommendations of measures, if any, which should be taken to stimulate and increase the production of iron and of iron and steel products in order to meet the direct and indirect war requirements and the demands of industries of exceptional or national importance.

Bernard M. Baruch, chairman of the War Industries Board, in authorizing the publication of the accompanying resolution of that board, embodying an agrement with the American Iron and Steel Institute, stated that the purpose of the board in taking this action was to insure the direct and indirectwar requirements of the United States and its Allies being fully met, after which whatever surplus production there may be shall be equitably distributed among the industries not engaged in war work.

SEEK TO STABILIZE CRUDE OIL PRICE

Petroleum Committee and Fuel Administration Anxious to Work Out Plan That Will Stimulate Maximum Output

The National Petroleum War Service Committee has been asked by the Oil Division of the United States Fuel Administration to cooperate in the development of a comprehensive plan to stabilize the price of crude oil and to establish definite and fixed differentials for the various qualities of crude.

The War Service Committee is making a thourough study of the subject, and with the assistance of its Advisory Committee is consulting the various factors in the industry with a view to suggesting a plan which will stimulate maximum output and give reasonable earnings.

M. L. Requa, director of the oil division of the United States Fuel Administration, in a letter to A. C. Bedford, chairman of the National Petroleum War Service Committee, in keeping with the policy which the Government has been following since the creation of the committee, states his belief that such a program can best be outlined by the committee rather than by the Government, because such a program "involves the welfare not alone of the producer but of all branches of the business."

"Any plan," said Mr. Requa, "will prove unsatisfactory at this time that fails to recognize that petroleum is one of our most vital national necessities to be dealt with not as a problem of production, transportation, refining or marketing, but rather as a whole the component parts of which must concede and provide for the necessities of all the other parts."

Mr. Requa suggests consideration of the California plan under which a base price is established for oil of a given gravity with additions for every degree of higher gravity and deductions for every degree of lower gravity than the established standard.

"But," adds Mr. Requa, "I believe the committee should approach the problem without much if any suggestion from the division; keeping in mind, however, the one general thought that it is desirable to have the oil industry, as a whole, firmly committed to certain reasonable and stabilized base prices with certain manufacturing differentials and regulations that will permit of reasonable and maximum output without adding to the price of the finished product.

"That some such program must of necessity be made effective shortly I believe goes without saying. Pending the discussion of this matter and report of the committee which I shall hope to receive, I shall expect that existing premiums and distribution of crude oil will remain unchanged as a voluntary action of the industry rather than due to any order of this department."

Mr. Requa had, on May 17, suggested that competition in the paying of premiums over and above the established price for crude oil production should be discouraged. The special occasion for raising the subject at this time is that several instances of increased price, due to competition, have come to the attention of the oil division, forcing belief in the necessity that some volunatary action be taken by the industry to establish definite and fixed differentials for crude of various qualities.

Mr. Bedford, chairman of the National Petroleum War Service Committee, in making public receipt of the letter from Mr. Requa, said:

"The National Petroleum War Service Committee is only too eager to cooperate with Mr. Requa in seeing to it that competition in the payment of premiums should be, as far as possible, eliminated. We feel that the distribution of petroleum should be governed primarily by war necessities, that every refiner should receive the share of available crude which he has been accustomed to receive and that there should be no occasion for any refiner paying unusual prices in order to obtain such a share.

"The petroleum industry is committed to an effort to attempt to accomplish the maximum cooperation with the Government as the voluntary act of the industry itself. All factors in the industry are cooperating in a policy of self-regulation, an effort in which we are being encouraged to the utmost by Mr. Requa, and an effort which I may say is calling forth not only the highest patriotism of all factors in the industry and a spirit of cooperation never before elicited, but is also effecting the best producing and manufacturing results which have ever been realized in this industry."

Can you refuse to loan your savings when other men give their lives? Buy War Savings Stamps.

EXPERIMENT STATION HEADS CONFER WITH MR. MANNING

To coordinate further the work of the mining experiment stations the superintendents of nine of these stations recently visited Washington to confer with the director and other officers of the Bureau of Mines.

The conference was opened by an address by Director Manning. Afterwards the work of each station was discussed by the superintendent thereof, Monday's sessions being given over to Bartlesville, Berkeley, and Columbus; Tuesday, to Golden, Minneapolis, and Salt Lake City; Wednesday, to the Seattle and Tucson stations; Thursday morning, to the Urbana station, and a discussion of the coordination of work; on Friday, the chief clerk explained the rules and regulations in so far as they pertained to the conduct of the field stations; the editor read a paper on the preparation of publications for the Bureau; and the publicity work of the bureau was discussed by John Cochrane.

It was agreed by the superintendents that the visits to Pittsburgh and Washington had been well worth while; that many new viewpoints had been acquired of the great work with its many ramifications being carried on by the Bureau, and this more comprehensive understanding would bear far-reaching results in a more extended cooperation with the general public and persons directly interested in such work. It was also agreed to continue the benefits resulting from this series of conferences by holding similar meetings semiannually, these future meetings to be held as follows: First, in the spring at Washington, in order that the director may attend the sessions when the status of legislation affecting the Bureau would permit him to do so, and to afford an opportunity for the superintendents to meet the various heads of the divisions; second, in the fall, at one of the western offices or a nearby city if that should be more convenient. In pursuance of this resolution, it was agreed to hold the second meeting for this year at Denver, Colo., beginning immediately after the adjournment of the meeting of the American Institute of Mining Engineers at Colorado Springs, beginning September 2.

Besides the director, the sessions were attended at various times by the assistant director, the chief mining engineer, and the chief metallurgist.

At the close of the general business sessions, the remainder of the week and the first half of the following week was spent in conferring individually with the supervisor, the director, and the various division chiefs regarding problems concerning the work of each station, and planning a general speeding up of work and increased cooperation and efficiency.

As this occasion marked the first visit of several of the superintendents to Washington and the east for a long time, members of the bureau planned several trips to show them the national capital in its springtime glory.

After adjournment on Tuesday automobiles were provided and the vistors were taken for a three-hour ride around the city and its environs.

Wednesday afternoon the following were guests of the supervisor of stations on a boat trip down the river to Mt. Vernon: Messrs. Duschak, Stull, Moses, Varley, Van Barneveld, and Holbrook, and J. O. Elton, superintendent of the electrolytic zinc department of the Anaconda Copper Mining Co. at Great Falls, Mont., who was visiting the bureau. After visiting the tomb of Washington, and the home filled with historical relics, the party proceeded to Wellington Villa. There it was met by members of the bureau's staff, who were hosts at a dinner in which all took a hand at preparing.

Every rule has its exception, and on this occasion the fallacy of the adage "Too many cooks spoil the feast," was proved. The number of cooks, anxious to show their skill exceeded the space at the fires. Contrary to the generally accepted meaning of the word, the "broilers" were not youthful members of the fair sex, but mature specimens of the opposite persuasion—the assistant director, the chief metallurgist, the chief clerk, and Mr. Lewis won renown as experts at cooking. The supervisor of stations, naturally, supervised the cooking. Was it a success? Ask Rover, a self-invited but welcome guest from a neighboring farm who evidently is an enthusiastic disciple of Mr. Hoover. He gave a practical demonstration of the gospel of the clean plate.

After supper the assistant director entertained the company with anecdotes of his experiences in China. Others related experiences. Songs were sung. Musical honors of the evening were accorded to Messrs. Duschak and Varley for their excellent rendition of a classical ballad entitled "Whoop-de-doodle-doodle-do," the motif of which concerned Mary's lamb and the trouble engendered in its interior department by an oyster can.

It was the sense of all present that the evening would be long remembered. The company's thanks were extended to the chief mining engineer who suggested the gathering, and to the ladies who prepared the feast.

Those present were the assistant director, the chief mining engineer and Mrs. Rice, the chief metallurgist and Mrs. Cottrell, the chief clerk and Mrs. Bailey, the supervisor of stations, Messrs. Lewis, Duschak, Stull, Moses, Varley, van Barneveld, Holbrook, and Elton; Mrs. Burrell, Mrs. Murray, Mrs. Clark, and the Misses Susan, Miss Benson, and Miss Harris.

Thursday afternoon the visitors were taken to the bureau's experiment station at American University, where the work on gas for war uses was explained and in some instances illustrated.

The entertainment features were brought to a close Thursday evening with a dinner at the

Cosmos Club by the assistant director to the visitors, to the director, the supervisor of stations, and the division chiefs in the Washington office.

The experiment stations and their superintendents are as follows:

Bartlesville, Okla., J. O. Lewis; Berkeley, Cal., L. H. Duschak; Columbus, Ohio, R. T. Stull; Golden, Colo., R. B. Moore; Minneapolis, Minn., Edmund Newton; Salt Lake City, Utah, F. G. Moses; Seattle, Wash., Thomas Varley; Tucson, Ariz., C. E. van Barneveld; Urbana, Ill., E. A. Holbrook.

Fairbanks, Alaska, was not represented at the conference, it being considered unwise to have the superintendent, John A. Davis, participate in the meetings as it would involve an absence of at least two months from his place of duty.

ENGINEER OFFICERS TO BE TRAINED AT CAMP HUMPHREYS

The Chief of Engineers, Gen. William M. Black, has announced that the Engineer Officers' Training Camp, scheduled to open about August 1, will be situated at Camp Humphreys, 17 miles south of Washington, on a plateau overlooking the Potomac River. Two thousand candidates for commissions as captains and first lieutenants will be trained under the same facilities provided for the 17,000 engineer replacement troops now there preparing for overseas service. These facilities include the ordinary military arrangements, and in addition some fifteen special schools to instruct men on such operations as mining, quarrying, gas and flame defense, barbwire fortification, water supply, and railroad communication.

The candidates for commissions will become familiar with the work of all these schools and conclude their training with a course in sapper work, in order that they may be fitted to command sapper troops if necessary. Many of the candidates will come from civil life, a campaign being under way to interest men of technical training and experience.

Many applications for entrance to the training camp have been received. To examine these candidates General Black has designated a traveling board, which will visit several of the larger cities and determine the physical and mental fitness of the applicants. This board will be headed by Maj. E. H. Williams, who will advise the candidates as to the dates on which they should appear in the cities to be visited for examination. Candidates for first lieutenancies should be between 32 and 35 years old, and those for captaincies between 36 and 42. Traveling expenses to the camp will be allowed successful candidates. Those accepted before August 1 will be sent to the existing engineer officers' training camp at Camp Lee, Petersburg, Va.

PLANS TO CONSERVE TIN ARE FORMULATED

The plan upon which the War Industries Board is working for the conservation of tin is based on the conviction that no government official, department or bureau can be in a position to apply restrictions to industries as wisely as the men who have spent their lives in the industries affected and are thoroughly acquainted with the technical details and the business consequences involved.

The board calls meetings of representatives of each important trade using tin, states the necessity for economy, asks for patriotic cooperation, and seeks advice as to how to get the results desired. Each industry is asked to organize, to consider the problem, and submit specific recommendations. These recommendations are digested and sent to everyone in each trade concerned. Conferences are held with those who may not agree with the recommendations, so as to get as complete unanimity as possible. A set of recommendations or regulations is then drawn up for each industry, and these are enforced by the authority of the War Industries Board.

The various uses of tin by different trades are classified in an ascending scale of importance:

1. Wasteful uses due to carelessness, ignorance or indifference. Wastes due to faulty practice which might be cut off not only without injury to anybody but rather to the definite pecuniary advantage of manufacturers.

2. Uses nonessential in character, such as the coating of articles with tin for ornamental purposes solely. Uses which could be cut off without injury to any individual or firm, provided all acted alike.

3. The employment of tin for purposes which in themselves are useful and desirable, so that their elimination would involve a certain amount of sacrifice on the part of manufacturers or consumers, but which are in no way connected with the vital needs of the country in relation to the war.

4. Uses directly for war purposes either by the Government itself as a manufacturer of war materials or by manufacturers who are making war materials for the Government.

Uses under 1 and 2 can and should be cut off at once. Under 3 curtailment is not in itself desirable. It will result in a certain disorganization of industry and reduction in economic efficiency, and ought to be avoided if possible. But the sacrifice will probably have to be made. Lastly come the direct war requirements, which must be met in full or military efficiency will suffer.

You can at least be in the second line of defense—be a war saver.

COAL REQUIREMENTS EXCEED LAST YEAR BY 80,000,000 TONS

The fuel budget for the season 1918-1919 has been completed by the United States Fuel Administration. A detailed survey of the coal required during the present coal year for war purposes, to keep industries running, and for domestic consumers, totals about 80,000,000 tons more than was produced last year. This is the figure on June 1.

Appointed State Fuel Administrator

The United States Fuel Administration announces the appointment of Winlock W. Miller as fuel administrator for the State of Washington. He succeeds David Whitcomb, appointed executive secretary to United States Fuel Administrator H. A. Garfield.

Winlock W. Miller is a native Washingtonian, son of William Winlock Miller, the first United States official in what was then Oregon. The new State Fuel Administrator is a Yale man, '94 and was admitted to the bar in Seattle, but has not actually practiced law. He is a member of the Taxation Bureau of the Seattle Chamber of Commerce, and of the Building Owner's Association. Recently he has been engaged in work with the supply bureau of the northwest division of the American Red Cross.

Coal Supply for the Northwest

The United States Fuel Administration and the United States Railroad Administration have arranged for shipments of coal by the Great Lakes to take care of the northwestern states and that portion of Canada dependent upon coal shipments on the Lakes.

A total of 28,000,000 tons of bituminous coal will be moved by the Lake Erie ports to the Northwest. Approximately 24,000,000 tons will go to the northwestern states and the remainder to Canada. The movement of the coal will be forced during the summer months so that if possible the movement of the coal can be completed by the end of October. This arrangement will avoid a repetition of the trouble last fall when Ohio and Michigan were unable to obtain coal in the early fall months because of the Lake movement. This year therefore it will be possible for these states to lay in their supply before winter although they will have to wait until fall to obtain the major portion of their supplies.

Yacht Fuel Restricted

The United States Fuel Administration has made public the complete text of a formal order signed by United States Fuel Administrator Harry A. Garfield, restricting the use of coal and fuel oil on private pleasure yachts. The Fuel Administration has issued no order affecting the use of gasoline in pleasure launches or automobiles.

Six Mines Closed Down

The determination of the United States Fuel Administration to conserve labor and transportation facilities by allowing only clean coal to be hauled away from the mines is bearing fruit. Inspection of the output of each mine visited is rigid and thorough. The work is being done by special inspectors appointed by the Fuel Administration in each mining district.

The reports to date show that 116 mines are preparing their coal properly for the market. No less than 568 mines have had to be censured and warned to improve their methods, and six mines have been shut down for disregard of the regulations. Three mines were partially shut down for the same cause. It is reported that there are five mines that needed reinspection and five mines where preparation has improved after inspection.

Since the new clean-coal orders went into effect preparation of coal has been so carefully watched by miners and operators that only fifteen carloads of coal have had to be penalized at destinations.

PERSONALS

Falcon Joslin, of Fairbanks, Alaska, and Seattle, Wash., who has been spending much time in the East recently, has gone to Alaska where he has taken a lease on 2,420 acres of coal land.

Harrie L. Taylor, of Nevada, was in Washington during the month. Mr. Taylor is interested in manganese deposits in Virginia.

N. K. Bowman, president of the American Mine Door Company, Canton, Ohio, spent several days in Washington recently.

John E. Hodge, of Minneapolis, Minn., was in Washington several days during the month.

R. J. Tuthill, of the Commerce Mining Company, Miami, Okla., was in Washington several days the latter part of June.

J. B. Wilson, of Wilberton, Oklahoma, has returned to his home after spending several days in Washington.

R. T. Price, President, Oklahoma Coal Operators Association, Muskogee, was at the LaFayette Hotel several days during June.

H. H. Hoag, of Joplin, Missouri, is at the New Willard.

William Wraith, who has been in Peru for the past several months, visiting the properties of the Andes Copper Company, is again at Salt Lake City, Utah. He will go to New York shortly, where he will hold the position of General Manager of the International Smelting & Refining company.

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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

THE GOLD SITUATION

The difficulties surrounding various efforts looking to substantial aid to the gold-mining industry are recognized by all. The vast importance of having something done is well recognized. The Mining Congress Journal is keenly concerned as to the effect a shrinkage of gold production will have upon the affairs of the country. It is more intensely interested just at this time in some effort that will prevent closing down of the mines of the country which produce gold exclusively. This seems to be inevitable unless some prompt and special stimulus is given to keep them in operation. The Mining Congress Journal has estimated that the costs of gold production are 60 per cent greater than in the pre-war period.

Mr. George E. Collins, of Colorado, a mining engineer of large experience in the operation of gold mines and a careful student of its economics, has made a careful estimate, which shows that the actual cost of gold production in the State of Colorado is 67 per cent greater now than in the pre-war period. Largely because of the upward trend of prices gold production had been falling off during the pre-war period. In 1915 the United States produced $101,035,700. In 1917 this production had fallen off to $84,456,600. It has been estimated that this production will fall off 35 per cent during the current year. This estimate was made without full consideration of the additional burdens in operating costs, for which there can be no recompense, because of the fixed price of the product. It seems certain that with few exceptions the large strictly gold producing mines of the country will be forced to close unless some artificial aid is given which will enable them to operate.

The closing down of the average deep gold mine is practically equivalent to an abandonment of the property. The mine fills with water, the timbers which protect the workings soon decay and permit the caving in of the works. The cost of unwatering and rehabilitating the mine equipment is so great that a mine once abandoned is likely to remain closed until conditions are very much more favorable than at the time of closing.

The shutting off of the replenishing stream of gold in the reservoir which maintains the credits of the nation cannot add to the confidence which the bondholders have in the stability of their securities. Unless production is kept up there must be a gradually diminishing volume of reserve. The industrial consumption of gold in the world has for some years past been in excess of $150,000,000 annually. During these same years the gold production of the world has approximated $400,000,000 annually. The gold reserves of the world do not show that $250,000,000 annually have been added to their volume. The best estimate indicates that about $200,000,000 will more than measure the total increase in the world's gold reserve. Whenever the world's gold production shall fall below $200,000,000 annually we may anticipate that the volumes of reserve gold will begin to be depleted. At a time of contracting currency this might not be dangerous, but during a period of vastly increasing financial transactions and unprecedented increase in bonds and debt, this condition becomes serious.

FINANCIAL ABILITY OF THE UNITED STATES

It is not to be supposed for an instant that, because of the increasing obligations resting on our gold reserves, the United States will have any possible difficulty in meeting its obligations. Whatever of suggestion THE MINING CONGRESS JOURNAL contains as to the danger to the gold mining industry does not in any way question the ability of the National Government to meet every possible obligation which has been or can be incurred in carrying on the great war enterprise which now absorbs the attention of all its people.

THE MINING CONGRESS JOURNAL does not question the ability to pay, but does question the means through which its obligations shall be met. Shall payment be made in such a way as not too greatly to disturb business relations and the industrial life of the nation or through a lack of foresight shall individuals suffer in the part which each must play in sustaining the nation's credit and paying its obligations? The wealth of the United States today conservatively estimated is between $200,000,000,000 and $250,000,000,000. It is estimated that the national income is between forty and fifty billions of dollars, while the estimated annual war expense does not exceed twenty-five billions of dollars. If these statements are correct, and no one at this time is able to successfully controvert them, then the war might go on indefinitely, and the people of the United States increase its aggregate wealth by the sum of $25,000,000,000 annually. Under these conditions economic ruin for the United States is practically impossible. It is fair to assume that casualties of a long drawn out war would not exceed, if, indeed, they should equal, the growing man power of the country.

With our man power increasing, our wealth increasing, our willingness to economize increasing and our willingness as a nation to perform harder service, it seems certain that day by day as the war progresses the United States will grow more wealthy and more resourceful notwithstanding any possible fluctuation in the value of the pawns through which our energies are made effective.

THE WAR MINERALS BILL

The Senate Committee of Mines and Mining is giving careful consideration to a new form of war minerals bill differing from the bill passed by the House and also from any previous bill which it has had under consideration. The proposed substitute anticipates a government corporation with a capital of fifty millions of dollars, authorized to make contracts on such terms as are necessary to create production of such minerals as are required by the Government, of which the supply is not available except through the special stimulus which this legislation will provide.

Senator Henderson and his committee have had several conferences with President Wilson, Secretary of the Interior Lane and the War Industries Board, and it is expected that within a very few days the committee will report a bill and that early action of the Senate may be expected thereon.

PRICE FIXING

The experience of the country in the matter of price fixing has not resulted in shaking the belief of the conservative experience of the business world that the law of supply and demand is and always will be the proper regulator of prices. The fixing of a minimum price on wheat did not stimulate wheat production. The price fixed at the time of its determination was a very liberal price and if production costs had remained stationary the intentions of the price fixers probably would have been realized. Extraordinary war conditions created so much of an advance in costs and in the price of other cereals that the average farmer found it unprofitable to raise wheat and more profitable to raise barley, oats and other crops. Had it not been for the patriotic impulses of the farmers of this country we should not be in anything like the enviable position we now are with respect to this year's wheat crop.

The fixing of a maximum price on

coal did not prevent exorbitant profits on coal, but did stop production from high cost mines, and by misleading the public prevented the buying at the time when its transportation to distant points was possible. This resulted in putting impossible burdens on the transportation system and a disorganization from which our transportation system has not yet fully recovered. This with its resultant scarcity of coal was followed by the heatless days order and the taking from one industry to supply another. It was found under the price fixing system planned to protect the public that business concerns organized to do business at low cost have been able to reap huge profits. The advantage or disadvantage of the price fixing system must be tested by its effect upon the volume of production in this particular article.

If the production is in excess of the amount required to meet the public demands, prices will soon adjust themselves to a point of fairness. Upon the other hand, if production is restricted, the public may easily be willing to pay for the privilege of buying at a high price rather than to do without the necessary article.

The effect is to bring about a disorganization which interferes with the operation of all related industries. If prices could be fixed upon all articles by some law sufficiently comprehensive to investigate all production costs the system might not be so detrimental.

The Mining Congress Journal regards price fixing as usually detrimental, always dangerous and utterly impossible if it is to be made universal, as it must be to bring about uniform results. The manufacturer who is required to sell his article at a certain price must be guaranteed that the expense of operation, the aggregate cost of material, labor and marketing must be kept within the selling price fixed by the governmental authorities. If his expenses are increased, while his outcome remains stationary, bankruptcy must follow unless his previous profits have been unconscionable. The great element in the cost of all material and supplies is labor. It would require some courage for a public man to advocate that the price of labor should be fixed by governmental agencies. Unless price fixing is made universal no general good can result. It is of no advantage that a laborer's wages shall be increased from four to six dollars unless the six dollars will buy more of living necessities than the four dollar wage permitted. It is of no advantage to the public to fix the price of a manufactured product below its cost because scarcity is a necessary result with its resultant increased prices or perhaps worse, an entire impossibility to get the article.

A distinguished mining engineer in discussing this problem advocates in time of war the conscription of all of the men and resources of the nation. He insists that it is not fair that one man shall be conscripted for service in the trenches at $30 per month with the death penalty for desertion, while his fellow is permitted to leave important war work on strike for higher wages, already three or four times greater than the soldier receives. He believes that the conscription of the entire resources of the Government, both its men and its means, would enable the Government to select for each particular service the man who can best serve in that capacity, and put all business on a low profit or a no profit basis until the war is over. This gentleman urges that the cost of the maintenance of our troops at the front is many times greater per man than the cost to Germany, and that after the war is over Germany will begin its warfare in the industrial world with a comparatively small debt, while the other industrial nations competing for world trade will be burdened with enormous bond obligations for which its generations must toil for ages to come.

The writer believes that official price fixing has not created any advantage to the country proportionate to the disorganization which the plan has produced.

REVENUE LEGISLATION

Congress has recessed until August 19 when the House of Representatives will reconvene, the Senate returning one week later. The recess has enabled the House

Ways and Means Committee to give its undivided attention to the drafting of the new Revenue Bill. It is understood that the House on reconvening will devote a week to the consideration of the Sims Water Power bill and then be ready to consider the reported Revenue measure which is expected to be ready for presentation to the House not later than September first. A full committee is working on the measure, the minority having been invited to participate and very little, if any, opposition within the committee is expected to the final draft as reported.

This means the measure will be passed by the House with little change and within a short time after introduction if the terms of the bill appear to be an equitable and fair distribution of the tax.

The Senate Finance Committee will likely, during the month of September, hold open hearings upon the measure. It appears that various members of the Senate Committee have indicated a desire to more nearly follow the English System of taxing the *War profits* only in addition to income taxes and that this tax (on war profits) should be very high —in some instances advocating a tax of 80 per cent on such profits. Beyond question there is much merit in such a plan. Normal pre-war earnings would be allowed business and the heavier tax would fall where it should—on the industry receiving marked increase in profits because of the war. Those opposing this plan offer but one objection, namely, that it will fall far short of raising the needed revenue.

THE IMPORTATION OF GOLD

The human system is conceded to be the most delicately organized, the most wondrous in its capability and the most effective of all worldly agencies in that through its mentality it is able to utilize many, and some day will be able to utilize all, of the inherent forces of nature. This wonderful organization is kept alive by the utilization of foods which by various manufacturing agencies are made into blood, which enters into the human system creating its strength and supporting its mentality. Without a continuous supply of blood this organization dwindles, becomes ineffective and death results. The human system cannot continue its function except there is a gradual and continuous replenishment of that blood by which it is nourished.

Gold is the life blood of commerce. Its necessity in the carrying on of our commercial relations is fairly comparable with the blood of the human system. The body cannot live on last year's supply of blood. An expanding commercial life cannot be sustained with the past production of gold. In the commercial world the continuing growth of business transactions requires a continually increasing amount of flowing currency. The present high price era is gradually shutting off the supply of gold and the near future will see conditions under which not only will there be no production which can go to the mints, but the gold already coined will, for various reasons, gradually diminish.

Shall we permit the life blood of commerce to be so depleted that the commercial body politic will starve? It seems plain to the writer that the shrinking of gold production at a time when an increase is required can have no other effect upon the business life of the nation and the world. There are financiers who argue that gold is a non-essential; that some other agency for the measure of values can be created and who point to the Federal Reserve Bank as a means through which gold is supposed to measure may be thus used as a basis of circulating medium. The wildest fantasies of the bimetallic advocates were nothing like so visionary as the belief that no basic money metal is essential as a guarantee of the ultimate redemption of currency. A purely asset currency would seem to be doubly as unstable as a currency based upon 50-cent silver, which most of these financial interests so roundly condemned but a few years ago. A proper ratio must be maintained between gold, and the amount of credit money which it maintains.

What must be done to maintain the confidence of the world that our credit money and our liberty bonds will ultimately be redeemed in gold? Can this be done by permitting the security to be depleted, or shall an intelligent effort be made to increase that security? The recognized value of gold—$20.67 per ounce—was supposed to represent the average cost of production during a period of years. We have already entered upon a period of high prices during which this valuation will not cover the cost of production. An investigation of the larger part of the world's gold production will show that during the prewar period the margin of profit was very small, and that the greater part of this production was from low-grade ores, so low that only mammoth operations in which every element of efficiency was utilized could possibly produce a profit. With the cost of such operations fully 60 per cent more than during the pre-war period, the small profit of that period is absorbed. Continued operations necessarily mean a loss. It would seem that we must either abandon gold as the basis of our currency and reduce our financial system to the basis of asset currency or else we must see to it that the stream of production is not too greatly interfered with.

What shall be the remedy? No more important question ever faced the economists of a nation. The Mining Congress Journal will open its columns to a discussion of this subject and will gladly hear from those who may have suggestions which promise practical results.

ARBITRATION OF LABOR DISPUTES IN WAR TIMES

The right to conscript labor for war service is as inherent in the government for one kind of service, as for another. Its right is not questioned as applied to civilians who are called upon for actual service at the front. This right is seriously questioned as applied to the men who, free from danger, live in their own homes in comfortable surroundings, and with pay several times greater than the soldier receives, who are engaged in the production of war necessities, without which the soldier in the trenches is helpless and at the mercy of the murderous assaults of the enemy. The Mining Congress Journal has repeatedly urged that all industrial disputes should be submitted to a judicial court of arbitration before any strike should be declared, and that until such time as a proper determination of the issues involved could be made by a proper tribunal, that strikes should be declared illegal.

This proposition may be open to argument but there can be no reasonable defense for the stoppage of production of materials which are essential for the protection of our soldiers in the trenches. This matter is again forcibly brought to notice by the recent strikes in the industrial centers of Massachusetts in which twenty-one thousand employes almost entirely engaged in war work, struck for higher pay. Upon this situation, Senator Thomas of Colorado spoke as follows:

> I affirm, Mr. President, that the conduct of these people at this time, although they may not so intend it, gives aid and comfort to the enemy at the very time when aid and comfort are greatly and sorely needed and who will doubtless welcome it. If striking were necessary, I would be the last to condemn this effort on the part of wage earners to secure what they think and what the country might determine to be an essential improvement in their condition; but when we consider that wages today are higher than wage earners ever dreamed of enjoying, and that the Government has gone to extremes in providing against contingencies like this, to the end that differences may be adjusted while not interfering with production, it becomes the duty of every public man to denounce, to condemn, and to deplore resort to strikes as a means of forcing the hand of the employer. It is profiteering in the worst sense, because, in addition to the demand for more money of the Government, the object is sought to be obtained through suspension of production at a time when production is so sorely needed.
>
> Mr. President, the injury caused by this idleness today in New England and in New Jersey, is more actual and more terrible, in my judgment, than all which has been accomplished by the fugitive utterances of individuals and by the treasonable publications and newspapers supposed to be disloyal to the Government.
>
> I trust, therefore, that this menace, which is constantly increasing, will find early response in some sort of legislation, if need be, to grapple with and destroy it, by strengthening the hands of the Government, to the end that labor difficulties may be settled as the industrial agreement requires that they should

be settled, to the end that our highest efforts everywhere may be given to the production of munition and of all other supplies needed in warfare. Treason should be made odious everywhere. We must recognize it whether it appears in strikes or in publications, in conspiracies or in openly declared hostility to the Government. We cannot be indifferent to this subject for it is too insistent and too common for the public safety.

MINING A WASTING INDUSTRY

Mining is a wasting industry. To the extent that it produces it reduces the original estate. Its invested assets are continually growing less. It is peculiar in another sense, in that it is a short-lived industry and an industry carrying great hazards. All of the possible supply of minerals for all future time is now in existence. A mine with a life of ten years each year sells one-tenth of its original holding. The proceeds of that sale appear to be a profit. That part of such proceeds which represents the value of the ore is not profit, but rather a transfer of property from one form to another, *i. e.*, a sale of one-tenth of the estate.

PUBLIC CONTROL OF THE MEANS OF COMMUNICATION

The passing under government control of telegraph and telephone lines of the country, marks one further step toward the permanent control by the government of all means of communication. Many well informed people believe that these public utilities will never again be operated under private control.

Mr. Newcomb Carlton, president of the Western Union Telegraph Company, in discussing the subject of the return of the properties of the Western Union to its stockholders, expresses his views as follows:

"It will depend upon the attitude of the public toward government ownership. If the government gives additional facilities and the public regards the operation as successful, I do not believe the wires will ever be returned to the present owners."

Mr. Carlton expresses the hope of those who favor public ownership and the doubt which creates greatest opposition to continue governmental control. Additional public facilities at the same or less price would bring about a condition in the public mind which would demand continued public control. Opposition to government operation is largely in the belief that the efficiency which makes for the best possible service at the least possible expense to the public, cannot be secured except through a business management which the government has never been able to exercise with reference to those activities which it has had under control. THE MINING CONGRESS JOURNAL believes that the best service will accrue from private ownership under public control. It also believes that public management and operation of any business enterprise is not justified except there is a marked advantage resulting therefrom. The business of a government is to furnish protection to its citizens, not to enter into competition with them in business enterprises.

THE MURDER OF ROMANOFF

The murder of Nicholas Romanoff, ex-czar of Russia, at the direction of the regional council of the Soviet government is one of the dastardly and inexcusable crimes growing out of thoughtless and well-intentioned effort of minorities to establish government suiting their particular ideas. Nicholas was a prisoner in the hands of one faction. Another faction was suspected of designs to rescue him, to prevent which he was ordered shot and the order executed on July 16, 1918. Oh, Liberty, what unconscionable crimes are committed in thy name! Civilization stands aghast at this crime of Bolshevikism growing out of a movement so well intentioned as to command the sympathy of many Americans and particularly of a distinguished mining man, who became so enthusiastic in this behalf as to assist it financially, as well as morally, in the big way which marked his other big accomplishments. Unfortunately such men forget that government is a serious executive business; that government implies the power to govern; that a government of the people must include the means of creating executive power through which may be carried out the wishes of the people as expressed through agencies provided for that purpose. Successful interference with those agencies results in anarchy, no matter how well intended. It may be that the McNamaras believed themselves engaged in a holy work for the benefit of their fellow workers when they spread death and destruction across the continent, winding up with the dynamiting of the Los Angeles Times building and the death of a score of law-abiding fellow workmen.

Possibly Mr. Gompers justifies his effort to raise a fund of $200,000 to defend the self-confessed McNamaras, and it is possible that Clarence Darrow felt that $4,000 of that money judiciously placed with a prospective juror was justified as an aid to the righteous execution of the laws of California. Possibly Mr. Darrow believed in the seditious speeches which have brought about his arrest for the violation of the espionage act, but *the agencies which are responsible for Mr. Darrow's selection to represent the United States in a speaking tour through the British Empire in the face of his record cannot even be suspected of good intentions.* It is possible that Francis J. Heney justifies his one time bitter and not yet retracted attack upon the constitution of the United States. It may have been the means through which he hoped to secure such public attention as would bring to him a position of prominence and enable him to render a genuine public service. Without doubt Mr. Gompers justifies his present strenuous effort to prevent the orderly execution of the criminal laws in California in the Mooney case. No great harm could come from Mooney's release, even though his guilt may be undoubted. Much harm could and would result if organized effort should interfere with the orderly execution of the law. When mobs shall be substituted for courts the liberties of the people will be at an end. Public sentiment with the present effort to secure Mooney's release will be somewhat weakened by the recollection of the McNamara case in which similar efforts were in progress at the time of the confessions, which demonstrated conclusively the guilt of the defendants.

For many years Mexico had a stable government under Diaz, autocratic, yes; sometimes brutal in the exercising of autocratic power, yes; and yet what would the people of Mexico give today could they have remained or could they return to the good government which they enjoyed under the Diaz regime? The struggle for better conditions calls for much of sacrifice and many of these struggles may produce some good, just as the great world war at this time will leave us with some admirable traits of character better developed and some conditions better than before. Whether it is worth the price which must be paid is a serious question. The murder of Nicholas Romanoff, whose chief fault consisted of his great desire to treat his people more humanely than they were capable of appreciating, carries its lessons. Russia under his rule was a splendid example of government as compared with present conditions.

Russia's present political condition is sufficient proof of the fact that government by minorities, whether organized or disorganized, leads but to anarchy, and that popular government cannot continue except where there is respect for the orderly processes which have been established to speak and execute the will of the majority of the people.

Popular government must have its foundation in the popular will as expressed through the majority.

Brewers' Coal Supply Cut

Referring to the order of July 3 cutting down fuel going to breweries, Mr. Garfield states that in view of the present coal transportation and other shortages and until the prospect of larger service is assured, breweries will not be able to count upon a supply of coal beyond that needed to utilize the materials in the process of manufacture including malt already manufactured.

This is merely another step in the program of curtailment of non-war industries begun several months ago, and is necessary in order that coal may be immediately delivered to war industries and to sections of the country remote from the mines.

GOLD PRODUCTION MUST BE KEPT UP

Heads of Congressional Committees on Mines and Mining Are Urged by American Mining Congress to Take Some Step

"The United States occupies a most enviable financial position among the nations of the world. The gold reserves of the world are approximately $10,000,000,000, while the total indebtedness is being increased to approximately $125,000,000,000. This indebtedness is being increased at the rate of more than $40,000,000,000 annually. Before the war the United States possessed approximately one and three-quarter billions of dollars in gold. At the present time our reserves have grown to approximately three and one-half billions as against an indebtedness at the beginning of the year of $8,000,000,000. In other words the world's obligations are more than twelve times its gold reserves while our own obligations are less than four times our gold reserves. We must not permit the loss of this relative advantage."

The foregoing is the first paragraph of a letter sent to Senator Henderson and Representative Foster by James F. Callbreath, the Secretary of the American Mining Congress. The letter continues as follows:

"We are spending annually more than our total indebtedness at the beginning of the year. We are more than doubling our gold obligations this year with no provisions for increasing the supporting gold reserves.

"Approximately ninety per cent of the world's gold production comes from the Allied countries; sixty per cent from Great Britain and her Colonies, nineteen per cent from the United States and six per cent from Russia. The United States occupies relatively a most enviable position in the world finance, but our war expenses are so rapidly increasing the burden of indebtedness based upon our gold supply, as to command the attention of thoughtful men concerning our financial stability in the future, and to call for extraordinary effort in maintaining our gold reserves at a proper ratio.

"During the pre war period with gradually increasing costs of labor, gold mining grew less profitable as is shown by the falling off of production from $101.035,700. in 1915 to $84 456 600 in 1917. It has been estimated by the best authorities that the production for the year 1918 will be thirty five per cent less than during the year 1917. This estimate was based upon the belief that the large low grade producing mines would continue operation. Much doubt is felt as to the accuracy of such expectation.

"At a conference of gold operators at Denver last week it was virtually agreed that with the exception of one mine, every mine in the Cripple Creek District should have stopped two months ago, if directed by good business judgment, and it was further admitted that with one exception, that unless continued for patriotic reasons every mine in the Cripple Creek District would be compelled to stop within three months. This reason applies to all of the strictly gold producing districts of the country, except the very high grade mines which are very few in number.

"Secretary McAdoo in a letter to Delegate Sulzer of Alaska, stated that 'At no time has this country so much required the largest possible production of gold as at the present. Next to food and ammunition, gold is one of the most needed war essentials.'

"We are properly and necessarily spending a vast amount of money. There is no practical way of increasing the lawful amount of money in the country, except by digging gold out of the ground or importing it from abroad. Already we have depleted foreign gold reserves to a dangerous point. Can we afford to permit gold production to stop? If not, what can we do to insure its continuation? Mr. George E. Collins, an eminent mining engineer of Colorado, and manager of a considerable number of gold producing mines, has made careful estimate, showing the cost of production at this time is 67 per cent greater than during the pre-war period, while the value of the output remains unchanged. Increasing operating expenses with a stationary income necessarily leads to bankruptcy and a stoppage of operations. If there were no gold operators and the Government could in no other way maintain its currency system on a stable basis, it would not only be justified but would find it necessary to operate its gold mines no matter what the production costs might be.

"Is it not more feasible to provide temporary aid which will offset the increased burdens of war times?

"How else can the United States preserve its financial credits? The question submitted is most vital as it relates to our future prosperity. Congress is now engaged in the preparation of a revenue law designed to yield approximately one-third of the annual expense of carrying on the war. This task is one requiring most careful consideration and the exercise of the best possible judgment. Should not this same body give equal consideration to the task of insuring the stability of the securities which are and must be sold to provide for the other two-thirds of this enormous war expense?

"The American Mining Congress urges its belief that unless the deplenishing stream of gold production shall be kept open so that gold reserves may continue to grow that sooner or later an excessive premium must be paid for that gold which will enable us to keep the promise of our Liberty Bonds. A premium on gold is another term for a depreciated currency. We ask your careful consideration."

Agrees With Editorial Expression

The following letter has been received:

"Editor—Mining Congress Journal:

"The Mining Congress Journal is to be highly commended and congratulated upon its vision and backbone evidenced in its recent editorial copied in Boston Transcript of July 13, 1918, entitled 'Death Penalty for Germany.'

"While the United States will consistently maintain its altruistic aims even at the Peace table—as you stated so vigorously the other Allied nations should partition Germany, and place her under guard—as the only remaining world asset—at least until the devastation wrought by her has been fully recompensed to the suffering nations.

"It is possible that the time will never come, when Germany can safely again be given reign as an independent nation. The Prussian will be only temporarily subdued and always obsessed with hope of retaliation. There is no ground to hope for repentance and reform in the nature of a rattlesnake. Civilization must take no chances again.

"American armies, which have undoubtedly turned the tide of battle, are menaced from within by an undoubted tendency to let an opponent down easily and give him another chance.

"If this war stops before the German people have had a taste of the destruction of their towns and cities—such as they have inflicted upon their neighbors—and before they have learned in sorrow and regret that war makes Germany suffer equally and that it does not pay—it will have been in vain and we will be again face to face with repetition.

"The German Government has forfeited all claim to existence, but the infliction of the death penalty as you state is too light a punishment for its crimes. The glory of a Napoleonic exile at St. Helena is not to be thought of.

"What then shall civilization inflict upon them when they are captured as they will be?

"Perhaps the severest punishment to be inflicted upon ego maniacs obsessed with grandeur and greatness would be to imprison the Kaiser and the Crown Prince in a cage guarded by soldiers, of whom they are so fond, in order that the millions who would do so, shall not tear them to pieces, and be exhibited throughout the world, until the billions of dollars indemnity shall have been collected from this display of the beasts of the twentieth century, and paid to the countries devastated by them.

"This would be a cruel, yet Christian, punishment and would develop their only usefulness to our world *i. e.* their earning-power which in fact would put the wealth of the Indies to the blush.

"In any event—'never again' is the handwriting upon the wall to be insured and underwritten by your method or by some other. Germany, the cruel and conscienceless, must not only be first thoroughly beaten down to destruction and helplessness but then kept impotent and under human control of the nations of Christianity and civilization.

"Lincoln C. Cummings,
Honorary Vice-President, Navy League of U. S., Member First District Naval Recruiting Commission."
Brookline, Mass. July 14, 1918.

Judge Thompson Approves

"My Dear Mr. Callbreath:

"I must congratulate you on the editorial in the July number of the Mining Congress Journal under the title, Capital Punishment for Germany. It is the sanest and the soundest thing I have read or heard and I would that some persons high in authority could read it and be governed thereby. I heartily agree with all you say and I am in accord with the proposition that Germany should have no place at the peace table.

"In the light of events and in view of some dominating forces, I have a feeling that the most dangerous condition that confronts the Allies, is not the question of winning the war or a final victory, but that the Allies may lose in the peace parley what they will so worthily win by their arms and armies. The baying of a pack of pacifists together with the whine of socialism that may be heard in high places, may drown the voice of justice and not only pardon but 'turn loose the unreconstructed criminal and furnish him with the tools and opportunity for another world outrage.'

"Sincerely yours,
"J. W. Thompson."

W. E. HOPE, STATE ORGANIZATIONS DIRECTOR, GOES TO NEW YORK

Walter E. Hope, who has been director of the Bureau of State Organizations of the United State Fuel Administration since its formation, has been compelled to return temporarily to his office in New York. Mr. Hope is a member of the law firm of Masten & Nichols and has been serving the government since September last as a volunteer.

During his absence the Bureau will be directed by Evans Woollen, federal fuel administrator for Indiana. Mr. Woollen is the president of the Fletcher Savings and Trust Company of Indianapolis, which has granted him a leave of absence for this purpose.

PETROLEUM INDUSTRY HIGHLY ORGANIZED

Requa Says No Industry Is Better Prepared to Do Effective War Work—Extracts from His Tulsa Speech

"The Necessity for Government Control of the Oil Industry" was the subject of an address delivered in Tulsa, Okla., Monday, July 22, by M. L. Requa, the general director, Oil Division, United States Fuel Administration. In part he said:

Your Oklahoma papers have in all seriousness asked "why?"; have stated that the producers and refiners of oil in Oklahoma wanted to be let alone; that they cannot understand why government control or supervision of the industry should be necessary, nor who will benefit by the stabilization of prices.

All through the newspaper comment there has sounded that one dominant note, which indicates to me an utter failure to grasp the problem of petroleum as related to this war.

In order that you may realize exactly what I have in mind it is my purpose to explain somewhat in detail this problem as it presents itself to me. I take it that it is needless to go into any explanation of the vital necessity for petroleum products in winning this war. *This war cannot be won without the products of petroleum.* And I can conceive of no prouder position in the ranks of our national defense than that occupied by this great industry, which supplies the lubricants for the machinery of our national industrial life, the fuel for our great battleships and for our fleets of air ships, which latter, I believe, in the last analysis will be the deciding factor in our victory.

No industry has been more completely or more effectively organized for war work. The National Petroleum War Service Committee has made possible results that could be reached in no other way. Stabilized prices for the allies have been agreed to, the orders allocated among the industry with an agreement that the smaller refiners may have more than their proportion if they want it, and an agreement, on the other hand, by the large companies that the quantity will be forthcoming as needed. If you have not studied the scope of that committee's activities I commend it to your attention not only as to the work and personnel of the national committee, but of the various subcommittees as well, representing as they do every oil district in the United States and every branch of the industry. The national committee and the subcommittee are preeminently volunteer organizations formed for the purpose of placing for war needs most completely and efficiently at government command the combined resources and activities of the petroleum industry. It has an important function to perform in the matter of fair prices. The knowledge of its members freely given to the Government for the asking is of greatest value. The national committee and the subcommittee deserve, I am sure, the confidence not only of the industry, but of the Fuel Administration as well. I shall expect that in all vexatious problems, disputes and trade adjustments the industry will endeavor to govern itself and reach a satisfactory agreement either independently as between the parties interested or with the aid of the local committees; failing that, then through the good offices of the national committee, appealing to Washington only as the last resort after all the above suggested means of settlement have been exhausted. Centralization of control in Washington as to the details of the industry is hopeless if we are to have the greatest efficiency and exertion of the maximum effort.

We are confronted by conditions never paralleled in the history of the world. We fight in defense of our firesides, our traditions, our fredom, our civilization. We have demand for more than we can supply. All steel is restricted to the requirements of war, and at present and for months to come there will be no surplus left for other uses. Innumerable industries are under restraint, and the manufacturers allowed to operate only for the actual needs of the United States Government. The price of copper has been fixed, as has the price of aluminum, zinc and many other products, and the business men of the nation have shown the most magnificent spirit of cooperation under the program of curtailment and regulation, notwithstanding the fact that it has in many cases meant heavy financial loss.

Is the oil industry unique or exempt? Does it seek for itself the right to go unchallenged and uncontrolled? I confess that that is not my conception of the spirit of the industry. The proposal that I am making is that stabilized differentials be created as between crude petroleum and finished products at the refinery and as between refinery prices and the price to the ultimate consumer; that these differentials be maintained and move in unison with the price of crude; that if necessary the volume of business be frozen and new business equitably distributed; that the old theory of competition give way for the war period to a condition of mutual helpfulness, in behalf of national welfare, and that all these things be brought about by the *voluntary* action of the industry in harmonious cooperation with the Fuel Administration.

If any there be who are so lacking in the spirit of the times as to build up selfishly their own business at the expense of others, regardless of the larger view, I am sure that we will find some way to control their activities. It is perfectly obvious that if a large proportion of the refining industry patriotically sets and observes a reasonable standard of premiums for crude, the Government cannot permit other refiners to take that crude at increased prices, to the injury and detriment of the patriotic citizen.

The present discussion will not go into the question of the price of crude. That price should be eminently satisfactory to the producers. Certainly never before in the history of the industry have they received profits equal to those now being gained. New development is active, production being more than maintained, and from the viewpoint of national need there is no valid argument to be made in behalf of increased prices. Our discussion has to do with the subject of premiums to be paid above the base price for crude of superior quality. It is not to be understood in any sense as an order to pay premiums, but simply as an inquiry—a request—to the industry to determine the amount of premium a refiner may pay, if he so elects, without subjecting himself to criticism. I have presented no plan, but have simply asked that the industry for the national welfare determine a method that will most satisfactorily accomplish the desired result. I am here for the purpose of discussing with you the reason for this request and to ask you to determine what method will, in your opinion, be most satisfactory. In approaching the subject, I ask that you keep in mind the abnormal conditions that surround us. And that you remember we may no longer apply old standards of measurement, but must surround ourselves with the atmosphere of war and use the national necessity as our measuring stick.

It has been intimated that any interference with premiums upon crude would tend to eliminate the independent and throw the entire business into the hands of the Standard or other great organizations. It is unthinkable to presume that the Government should take one action that might prevent the refiner from securing his crude and not take another action that would assure him his source of supply, permitting him to continue his activities.

The quantity of oil so provided is to be based upon some past volume of business, keeping in mind the paramount necessity to see to it that our Army and Navy and the armies and navies of our allies are amply supplied. This in effect may mean the allocation of oil, which will be undertaken if necessary, but only after most careful deliberation and consideration of all the complexities involved. It is my hope that this point may be worked out by the local committees without the necessity of appealing to Washington.

We are engaged in a great war. We have joined with other nations in defending the cause of human liberty and freedom. The representatives of the people—the Congress of the United States—has passed war measures for the purpose of national defense. The times demand stern discipline; powers have been conferred that may be justified only on the plea of national safety. Among those acts is the so-called Lever Bill, giving to the President authority over foods, feeds and fuels, including fuel oil; so far-reaching in effect that I question whether many of you here present fully realize the power and the authority vested in the President, who in turn has authorized Mr. Garfield to act for him in the administration of the bill so far as coal and fuel oil are concerned.

The Lever Bill is the identical measure under which the Food Administration has acted and under which have been secured more than eight hundred convictions, running the entire gamut from a day's suspension of business to fines of from $25 to $50,000, and in some cases to complete suspension of business during the period of the war.

Under the provisions of this act it is possible to license the industry concerned; to issue rules and regulations for its conduct, and generally to supervise and direct. Let me recite to you some of its provisions:

It provides in its preamble: "That by reason of the existence of a state of war, it is essential to the national security and defense, for the successful prosecution of the war and for the support and maintenance of the Army and Navy, to assure an adequate supply and equitable distribution, and to facilitate the movement of foods, feeds, fuel, including fuel oil and natural gas, . . . tools, utensils, implements, machinery and equipment required for the actual production of foods, feeds and fuel, hereinafter in this act called necessaries, to prevent, locally or generally, scarcity, monopolization, hoarding, injurious speculation, manipulations and private controls affecting such supply, distribution and movement, and to establish and maintain governmental control of such necessaries during the war."

Section 4 of the act relates to prevention of waste and makes it unlawful knowingly to commit waste, to hoard necessaries, or to engage in discriminatory and unfair or any deceptive or wasteful practices; to make any unjust or unreasonable rate or charge in handling or dealing in any necessaries; to exact excessive prices for any necessaries.

Section 5 is the licensing clause, which the best lawyers in the United States have agreed gives complete control, inasmuch as it is not specified what the rules and regulations shall be, but simply states that "the President is authorized to issue such licenses and to prescribe" rules and regulations and requirements for systems of accounts and auditing of accounts, and for the submission of reports.

Section 10 is the commandeering section, which authorizes the President to requisition necessaries for the Army and Navy or any public use connected with the common defense, and to requisition or otherwise provide storage facilities.

Section 12 gives the President authority to "take over for use or operation by the Government any factory, packing house, oil pipe line, mine or other plant. . . ."

The Lever Bill expressly authorizes the creation of differentials and determination of fair prices. I know you must agree that under the terms of this law there is ample authority for the most sweeping control.

It is because of these drastic provisions that I have been especially careful in the application of them. I have gone on record as believing that a free people, schooled in democracy, could successfully police their own industries as a voluntary and spontaneous tribute to the form of government under which they live. I am still of that opinion, and it is because of that belief that I am here today, to lay before you the problem of the Fuel Administration as related to the oil industry and to counsel with you to the end that you may see the necessity not only of concerted action, but of *voluntary* action in behalf of national regulation.

It would have been a simple matter under the provisions of the Lever Bill for the Fuel Administration to have fixed defferentials and to have announced those differentials under the authority conferred by that act. There could have been no successful objection; the oil industry would of necessity have been compelled to follow those rules and regulations. I have, however, conceived that it was much more to be desired that before promulgating such rules the men most interested should be given opportunity to meet face to face with the government officials charged with supervision of the oil industry, for the purpose of frank discussion of the reasons for making desirable some such control.

DISCUSS EFFECT OF DRAFT ON LABOR IN MINE REGIONS

A conference of men from all over the country, chosen by James B. Neale, Director of Production of the United States Fuel Administration, as his aides in the intensive campaign for increased production, was held recently at the United States Fuel Administration. The conference was addressed by Col. Roscoe Conklin of the United States Army, who explained the attitude of the United States Government in regard to the drafting of coal mine workers.

It was stated by those familiar with labor conditions in the mining districts that there was a disposition on the part of some mine workers to regard those of their comrades who obtained deferred classifications as slackers. Director of Production Neale declared that it should be most thoroughly understood that the government and the United States Fuel Administration regards the man who remains at the mine doing his work, increasing the production of coal, as serving his country quite as truly and bravely as if he were on the firing line in France.

Reports from the most prominent coal mining districts in the country were to the effect that everywhere the coal operators are determined to, and the mine workers are displaying the most patriotic earnestness in trying to increase the production of coal. Voluntarily they are giving up many of their cherished recreations and are sacrificing their holidays. It was reported from the Connellsville District, for instance, that the men who voluntarily worked on July 4, turned out enough coke on that day to build twenty steel ships.

Production Director Neale explained fully the details of the proposed production campaign, with its appointment of Production Committees in every mine and the steps that are to be taken to insure full hours of labor each day and six full days a week. It was the consensus of opinion that a high mark should be set in the future toward which the mine workers might aim.

Among those present at the conference were Charles O'Neill, Altoona, Pa.; F. M. Lockhart of Somerset, Pa.; Brooks Fleming, Fairmont, W. Va.; Howard P. Byrdon, Cumberland, Md.; James S. Amend, Greensburg, Pa.; W. L. Byers, Connellsville, Pa.; J. W. Dawson, Huntington, W. Va.; Judge H. C. Selheimer, Birmingham, Ala.; J. Lincoln, Pittsburgh, Pa.; J. J. Roby, Cleveland, Ohio; J. H. Kilgore, Norton, Va.; J. H. Pritchard, of southern Ohio; C. E. Lenhart, Uniontown, Pa.

FIXED PRICE CONTRACTS TO BE USED WHENEVER POSSIBLE

It has been decided by the Superior Board of Review of the general staff that, wherever possible, fixed price contracts shall be used in the purchase of supplies for the War Department.

In the exceptional cases, where it is clearly to the advantage of the Government that a cost plus contract be used, a cost plus fixed compensation contract is to be made rather than a cost plus percentage contract.

The decision on all such contracts is not to be made by any individual. Hereafter no cost plus contract will be made unless it has first been approved by the particular supply bureau's board of review. Such boards have now been established in every bureau that has to do with the making of contracts of the procurement of supplies. These boards are composed of officers and civilians who have not taken any part in the preliminary arrangements of the proposed contract.

As a further check to insure absolute fairness to the Government it has been decided that no cost plus contract shall be approved by a supply bureau board of review unless the making of cost plus contracts under the particular circumstances involved shall first have been approved by the Superior Board of Review. This board is composed of the Director of Purchases and Supplies, chairman; the Surveyor of Contracts and the chairmen or the chief procurement officers of the supply bureau's boards.

The Superior Board of Review operates on policies formulated by the general staff through the purchase, storage and traffic division.

PRIORITY REGULATIONS EXTENSIVELY REVISED

Procedure Simplified so as to Lessen Burden on All Concerned and Insure Quicker Delivery of Needed Materials

The Priorities Division of the War Industries Board has issued circular No. 4 embodying a revision of its rules and regulations governing priority in production. Only such changes have been made as have been suggested by the experience of the past six months and these will tend to simplify the administration of priorities from the viewpoint of all concerned, and at the same time give greater assurance that the war requirements will be promptly met.

The circular is signed by Edwin B. Parker as Priorities Commissioner, Bernard M. Baruch as chairman of the War Industries Board, Secretary of War Baker, Secretary of the Navy Daniels and Edward N. Hurley, chairman of the United States Shipping Board and President of the Emergency Fleet Coroation.

The new circular continues in effect Class A.A, which comprises only emergency war work; Class A, which comprises other war work, and Class B, which comprises orders and work which, while not primarily designed for the prosecution of the war, yet are of public interest and essential to the national welfare or otherwise of exceptional importance. In order to secure rating within these three classes application must still be made to the Priorities Committee on forms furnished on request, save in cases where provision is made for automatic classifications, and the conditions for procuring automatic classifications have been strictly complied with.

The circular embodies, however, two fundamental changes:

First. The addition of Class D (corresponding to what was formerly Class C) and the creation of Class C as a class entitled to precedence.

Second. The establishment of automatic ratings.

CLASS C ORDERS

Class C, as described in the new circular, comprises all orders and work not covered by priority certificates or automatic ratings, but which are to be utilized in furtherance of one or more of the urposes embraced within what is designated as the "General Classification of Purposes Demanding Preference Treatment," or which orders and work are placed by or are to be utilized in connection with an industry or plant appearing on what is known as preference list No. 1. The "General Classification of Purposes Demanding Preference Treatment and the Preference List" have already been compiled and issued by the Priorities Board. The preference list up to the present has been utilized solely with reference to the supply, distribution and transportation of coal and coke, but its use is extended in the new circular so that it now becomes, along with the general classification of purposes, a basis for determining Class C orders.

CLASSIFICATION OF PURPOSES

The General Classification of Purposes is as follows:

Ships.

Including destroyers and submarine chasers.

Aircrafts, Munitions, Military and Naval Supplies, and Operations.

Building construction for government needs. Equipment for same.

Fuel.

Domestic consumption. Manufacturing necessities named herein.

Food and Collateral Industries.

Foodstuffs for human consumption and plants handling same.

Feeding stuffs for domestic fowls and animals and plants handling same.

All tools, utensils, implements, machinery and equipment required for production, harvesting and distribution, milling, preparing, canning and refining foods and feeds, such as seeds of foods and feeds, binder twine, etc.

Products of collateral industries, such as fertilizers, fertilizer ingredients, insecticides and fungicides.

Containers for foods and feeds, collateral products.

Materials and equipment for preservation of foods and feeds, such as ammonia and other refrigeration supplies, including ice.

Clothing.

For civilian population.

Railroad.

Or other necessary transportation equipment, including water transportation.

Public Utilities.

Serving war industries, army, navy and civilian population.

AUTOMATIC CLASS C RATING

No Class C certificates are issued, but the orders designated within Class C are automatically so classified, provided the person intending to use the materials, equipment or supplies files with and as a part of the order an affidavit in writing.

Unless rerated by express order in writing by the Priorities Committee of the War Industries Board, this order is by authority of said Priorities Committee rated as Class C under and by virtue of section 9 of Circular No. 4 issued by the Priorities Division of the

War Industries Board of date July 1, 1918, and all amendments thereto.

For the purpose of securing the said rating I do solemnly swear: (1) That I have taken and filed whatever pledge is required by the War Industries Board from the industry of which I am a member; and (2) That the materials, equipment or supplies covered by this order are intended for use, and will be used for the purpose or purposes mentioned and referred to in section 5 of said circular, and for no other purpose.

AUTOMATIC CLASSIFICATION

On direct government orders, the new circulars provides that orders placed after June 30, 1918, by a duly authorized officer of the War Department, the Navy Department or the United States Shipping Board Emergency Fleet Corporation which fall within Class A shall, upon the placing of the order, automatically be classified as Class A-5, provided that the order carries an endorsement personally signed by the officer placing the order, as follows:

Unless rerated by express order in writing by the Priorities Committee of the War Industries Board, this order is by authority of said Priorities Committee rated as Class A-5, and its execution shall take precedence over all your orders and work of a lower classification to the extent necessary to insure delivery according to the date specified herein, as prescribed by circular No. 4, issued by the Priorities Division of the War Industries Board, of date July 1, 1918, and all amendments thereto.

SPECIFIED PURPOSES

Automatic Classifications are likewise allowed on orders for materials, equipment or supplies for the following specific uses:

a. For the manufacture of turbines (all classes) A-4

b. For the repair or construction of steam railroad locomotives for use on the railroads under the jurisdiction of the United States Railroad Administration A-4

c. For the production of electrodes A-5

d. For the manufacture of rope wire and of wire rope A-5

e. For the building of ships or other water craft for and under direct contracts with the United States Shipping Board Emergency Fleet Corporation A-5

f. For the building of all cargo water craft (but not pleasure craft save such as are under construction by or for the United States Shipping Board Emergency Fleet Corporation A-6

g. For the manufacture of machine tools for working both metal and wood; of machinists' tools, of small tools, of hand tools, and of mining tools, machinery and equipment A-6

h. For the manufacture of steam railroad materials, equipment and supplies (other than locomotives) for use on the railroads under the jurisdiction of the United States Administration B-1

i. For the manufacture of locomotive cranes and traveling cranes... B-1

j. For the manufacture of electrical equipment other than turbines (but not electrical supplies as distinguished from equipment) B-2

k. For the manufacture of farm implements B-2

l. For the manufacture of textile machinery B-2

m. For the manufacture of tools, implements, machinery and equipment required for the production, harvesting, distribution, milling, canning and refining of foods and feeds B-2

n. For the manufacture of binder twine and rope B-2

o. For the manufacture of oil-well supplies or equipment—by which is meant supplies for the production of petroleum and natural gas— but not including pipe lines, storage tanks of 1,000 barrels capacity or over, tank cars or refineries B-2

However, before an order takes the automatic classification, it must be accompanied by an affidavit in the following form:

Unless rerated by the express order in writing by the Priorities Committee of the War Industries Board, this order is by authority of said Priorities Committee rated as Class ——— under and by virtue of subdivision ——— of section 8 of Circular No. 4 issued by the Priorities Division of the War Industries Board of date July 1, 1918, and all amendments thereto.

For the purpose of securing the said rating I do solemnly swear:

1. That I have taken and filed whatever pledge is required by the War Industries Board from the industry of which I am a member; and

2. That the materials, equipment, or supplies covered by this order are intended for use and will be used, for the purpose or purposes mentioned in the said subdivision or subdivisions of said section 8, and for no other purposes.

HIGHER RATINGS POSSIBLE

The automatic classifications do not prevent higher classifications being given on orders so included where it may appear essential or desirable that a higher classification be given. No application for a higher classification should be made, however, save in cases where the automatic rating will not secure reasonably satisfactory delivery, and such application must disclose facts evidencing that the public interest requires an earlier delivery of the order than can be secured under the existing automatic rating.

TRANSPORTATION

The circular calls attention to the method of securing a place on the Preference List, compiled by the Priorities Board, of which the Priorities Commissioner is chairman and H. G. Phillips is secretary. Applications must be made on a separate and distinct form of application, which may be secured from Mr. Phillips on request. The circular points ou that the Priorities Committee does not issue priority on fuels, food or feeds, or transportation. The Preference List compiled by the Priorities Board is used as a guide by the United States Fuel Administrator and the United States Railroad Administration in the distribution of fuel to industries and plants.

TRANSPORTATION

Application for transportation assistance should be made to T. C. Powell, manager of Inland Traffic, War Industries Board, Washington, D. C., on forms of application which may be had from him on request.

The new circular embodies the instructions included in Circular No. 3 that an application should not be made until the order covered, thereby has actually been placed and also that no application should be made where no shortage exists or where no delay in delivery is expected. Inquiry should first be made to ascertain if there will be a delay and in all cases the application should state when delivery is needed and when delivery is promised. A new application form, Application Form P. C. 15, has been issued; however, applications made on Form P. C. 11 will still be accepted.

The new circular calls attention again to the test in requesting priority:

"The paramount purpose of priorities is the selective mobilization of the products of the soil, the mines, and the factories for direct and indirect war needs in such a way as will most effectually contribute toward winning the war. In requesting priority the petitioner should join with the committee in applying the test: To what extent, if at all, will the granting of this application contribute, directly or indirectly, toward winning the war; and if at all, how urgent is the need?"

Exportation of Gold Manufactures

The War Trade Board announces the adoption of the following regulations with respect to the exportation of gold jewelry, gold watches, gold plate, and all other manufactures of gold:

1. On and after July 29, 1918, no license will be issued authorizing the exportation of gold jewelry, gold watches, gold plate or other manufactures of gold unless evidence satisfactory to the War Trade Board is submitted showing that the f. o. b. selling price of the articles to be exported is not less than three times the value of the fine gold contained in such articles.

2. However, exceptions may be made to the above regulation if evidence satisfactory to the War Trade Board is submitted showing that the gold jewelry, gold watches, gold plate or other manufactures of gold to be exported were actually manufactured for the sole purpose of export prior to July 29, 1918. Licenses may be issued for the exportation of such articles provided the f. o. b. selling price of such articles is not less than twice the value of the fine gold contained therein and the exportation of same is made on or before September 1, 1918.

3. Notwithstanding the date of manufacture for export there may be exported after September 1, 1918, only such manufactures of gold, the f. o. b. selling price of which is not less than three times the value of the fine gold contained therein.

4. Applications for license to export dental gold and all manufactures of gold when the same contains platinum, iridium, rhodium or palladium may be considered only when the regulations governing the exportation of the latter named metals are complied with.

MINE WORKERS PROVE PATRIOTISM BY RESULTS

The United States Fuel Administration finds cause for gratification in the production reports that have come in from various coal fields, both anthracite and bituminous, all over the country. These reports indicate that the mine-workers paid patriotic heed to Fuel Administrator Garfield's appeal that the Fourth of July celebration be not unduly extended, and as a result the days immediately following the fourth gave a much larger output than in any previous year.

Letters from some of the District Representatives show that even on July 4th itself the output was about 60 per cent of the present normal rate of daily production. In several of the districts the mines were worked on the national holiday and, instead of the day being a blank so far as mining was concerned, a considerable tonnage was produced.

Prior to the issuance of the Fuel Administration's appeal, arrangements had been made by the miners in many coal fields for picnics and outings and meetings that should extend over the 5th and 6th, after the national holiday. In a great many instances these programs were called off as soon as the Fuel Administration's appeal made the need of the nation known. The reports that have already come in indicate that the "great service army" of mine workers has awakened to its increased opportunity and its duty of sustained service.

CAPT. J. D. MOONEY

Mining engineer now doing important work in the ordnance department.

ANTHRACITE FOR NORTHWEST TO BE CURTAILED SOMEWHAT

The formal order of the U. S. Fuel Administration restricting the movement of anthracite coal from any of the coal docks in the states of Minnesota, Wisconsin and Illinois and the Upper Peninsula of Lake Michigan, located along the western bank of Lake Michigan and Lake Superior, has been announced.

Under the order every shipper of anthracite coal from any of the docks mentioned is required to sell, ship and distribute such coal only to dealers and consumers for use and consumption within the following sections of the United States, viz:

(1) The states of North Dakota, South Dakota, Minnesota and Wisconsin;

(2) The Upper Peninsula of the state of Michigan;

(3) That portion of the state of Iowa located on the north of a line coincident with the Illinois Central Railroad from Dubuque to Sioux City, Iowa;

(4) The following named counties within the state of Illinois: Cook, Stephenson, Winnebago, Boone, McHenry, Lake, Ogle, DeKalb, Kane, DePage, Lee, Kendall and Will.

The supply of anthracite coal to which this territory has been accustomed in former years was reduced in the apportionments for this year, because of the enlarged demand in the most congested portions of the eastern territory occasioned by the increased industrial activities incident to the war, and the impossibility from a transportation standpoint of providing in the east any other fuel for domestic purposes than anthracite coal. To meet this extraordinary situation the apportionment of anthracite coal to the middle western territory of the United States was somewhat curtailed, and the apportionment of bituminous coal correspondingly increased.

OVERSEAS FORCES DEMAND INCREASING GASOLINE SUPPLY

The constantly growing demand for gasoline to supply airplanes and motor transports now with the American overseas forces in France, will necessitate continually increased shipments to the American Expenditionary Forces. Present stocks of gasoline, however, are now ample to supply the war demand and to allow the normal rational consumption in this country to continue.

The abnormal waste which characterizes the use of gasoline in motor propelled vehicles, however, must be brought to an immediate halt. Legitimate use of gasoline for internal combustion engine fuel does not mean that gasoline may be handled wastefully. The present method of distribution of gasoline is extremely wasteful, the product being handled carelessly and without the slightest regard for conservation in thousands of garages and supply stations throughout the country. The Fuel Administration is urging everyone concerned in the production, distribution and consumption of gasoline to eliminate every possible point of waste. Unless this is done the present supply may in a short time become an actual shortage. If this condition develops the Fuel Administration will not hesitate to make effective enforced conservation methods, which, however, up to the present have not been necessary.

Modified Mine Run Prices

To meet a demand of the mills, the railroad and tower plants in a portion of the State of Missouri and a portion of the State of Kansas, the United States Fuel Administrator has established prices on the modified mine run product of mines in Barton and Vernon counties, Missouri, and in Cherokee and Crawford counties, Kansas.

The order fixed the price of nut run or stoker coal at $3.05 per net ton, and for mill coal, $2.95 per net ton.

PETROLEUM STANDARDIZATION COMMITTEE IS AUTHORIZED

The United States Fuel Administration has made public the following executive order issued by President Wilson:

Whereas, in order to avoid duplication of effort, and in the interest of economy and the more efficient concentration of the government and for the better utilization of resources and industries it is desirable that there shall be a standardization of specifications for the supply of petroleum and its products to the United States Government.

Now, Therefore, I, Woodrow Wilson, President of the United States, by virtue of the authority vested in me as Chief Executive, and by virtue of the powers conferred on me by the Act of Congress entitled "An Act authorizing the president to coordinate or consolidate executive bureaus, agencies, and offices, and for other purposes, in the interest of economy and the more efficient concentration of the government," approved May 20, 1918, do hereby order that the function, power, and duty of preparing and adopting specifications for the supply of petroleum and its products to any and all departments, bureaus, agencies, and offices of the government be transferred to and exercised by the United States Fuel Administrator. The United States Fuel Administrator shall exercise such functions, powers, and duties through a Committee on Standardization of Petroleum Specifications which shall be composed of the following members: A chairman, who shall be appointed by the United States Fuel Administrator; one member who shall be appointed by the Secretary of War; one member who shall be appointed by the Secretary of the Navy; one member who shall be appointed by the chairman of the Shipping Board; one member who shall be appointed by the Director General of the Railroad Administration; one member who shall be appointed by the Director of the Bureau of Mines; and one member who shall be appointed by the Director of the Bureau of Standards. The specifications so prepared and adopted shall be binding upon and govern all departments, bureaus, agencies, and offices of the government. It shall further be the duty of the United States Fuel Administrator, acting through said Committee on Standardization of Petroleum Specifications, to take all proper means to bring about a standardization of petroleum specifications for the purchases in the United States of the allied governments.

This order shall be and remain in full force and effect during the continuance of the present war and for six months after the termination thereof by the proclamation of a treaty of peace, or until amended, modified, or rescinded.

Walter Fitch, of Eureka, Utah, is now in Washington, where he will remain indefinitely.

BAN PUT ON IMPORTATION OF LOW GRADE CONCENTRATES

Owing to some uncertainty regarding the application of the restriction imposed by the War Trade Board upon the importation of copper ore, the board has, by a new ruling No. 169, altered the original ruling to read that hereafter no licenses will be issued for the importation of copper concentrates containing less than sixty per cent of copper, except for shipments from Cuba, Canada and Mexico. All outstanding licenses for the importation of copper concentrates containing less than sixty per cent of copper have been revoked as to shipments from abroad after July 20, 1918, except for shipments from the three countries above specified, from which copper ore may be imported.

This restriction is not to be construed as affecting the importation from any non-enemy country of copper matte or blister copper, or copper concentrates containing sixty per cent or more of copper.

The purpose of the new ruling, as of the former one, is to bring about the ocean transportation of copper in a concentrated form rather than as the bulkier ore.

COMMITTEE ON STANDARDIZING ELECTRICAL EQUIPMENT REPORTS

The following report from H. S. Sands, chairman of the Committee on Electrical Equipment in Metal Mines of the American Mining Congress has been received:

"I have given your letter of June 14 much thought, and I do not quite see that it would be practical at the present time to attempt any standardization through Congress such as is suggested in your letter by the bill for the Standardization of Screw Threads. From my visits with numerous mining properties in the West I feel that our committee's rules promulgated sometime ago have had a very material effect on the electrical installation. I find many of the properties that were rather opposed to anything that would tend to apparently increase the expense at the time the rules were promulgated, are now following. I do not, however, think that they are sufficiently universal to have them accepted as a compulsory rule but feel that they are working a hardship on some of the properties. They affect an economy in operation in the long run, but it is not always easy to show this to mine operators, particularly when an increased cost is required at the start, and I believe that the committee has got to work a little bit more to create a better mental attitude before any action is actually taken. And then again, I hardly think that this would be a propitious time to attempt anything of this sort on the metal mining industry at large, particularly the gold mining industry. I find that the operators' minds are being taken up with very much more vital questions at the present time."

H. C. MORRIS
Specialist in charge of the rarer metals for the Bureau of Mines.

GOVERNMENT REQUIREMENTS FOR COAL INCREASE FAST

The Government requirements for coal are increasing by leaps and bounds. The various Government departments estimate their steel needs for the year at twenty-two millions of tons, as against a present capacity of about 16,000,000 of tons. It is estimated that each ton of steel requires nearly 5 tons of coal in its manufacture and transportation. To supply this steel for ships, shells, rails and other war material would require 110,000,000 tons of coal.

A very large percentage of the coal for bunkering the ships of the Shipping Board and the navy and for supplying the by-product coke ovens which must be maintained to keep the steel industry going, must come from the coal fields of Pennsylvania, West Virginia and Maryland, which produce the particular grade of coial required for these purposes.

These fields must, to a large extent, also fill the industrial coal demands of New England, New York, New Jersey, Pennsylvania, Maryland, Delaware, West Virginia, Virginia, to a lesser extent that of Ohio and Michigan, and to a considerable extent the metallurgical and illuminating gas plants of Indiana and Illinois. Even the record output now coming from these producing fields cannot meet the constantly increasing demand of the Government and the war industries, and at the same time care for the normal industrial demands of this section of the country.

Plans are underway for allotting the coal produced in such a way as to give each section of the country its pro rata share of the amount remaining after the war requirements have been filled.

The use of coal in some war industries necessarily will be restricted by reason of the shortage in the supply of steel and other raw materials. These restrictions will permit the diversion of some portion of the coal which the Fuel Administration had contemplated allotting to non-war industries for more direct war use.

Anthracite Distribution Policy

The policy of the Fuel Administration providing for the distribution of anthracite coal in the four central states—Michigan, Ohio. Indiana and Illinois, has been announced.

The policy, which has been agreed to by the various State Administrators, provides that in any state in which the allotment of anthracite coal for the current year has been materially curtailed, domestic anthracite sizes should be distributed first to those communities within the state which would experience the greatest inconvenience, difficulty and possible suffering in changing from the use of anthracite to the use of bituminous coal.

In conformity with this policy the State Administrators will distribute within their states the allotment of anthracite following carefully arranged schedules as to locations, which have been furnished them by the Administration at Washington for their guidance.

Production Records Broken

R. W. Gardiner of Pittsburgh, Pa., reports that the mines in his district showed an increase of production for the week ending July 20 of 6,396 tons over the previous high week's record of these mines.

E. A. Holmes of Birmingham, Ala., reports that mines in his district show an increase of 3,085 tons over the previous high week, and H. N. Taylor of Kansas City, Mo., reports the banner increase of 19,352 tons over the previous high record for these mines.

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COMMITTEE AT EACH MINE TO URGE INCREASED PRODUCTION

In order to supply leaders for an intensive campaign for increased bituminous coal production the United States Fuel Administration is appointing in each of the producing districts throughout the country a man to serve as production manager for his district. At each mine a committee of six, to be known as the Production Committee of the U. S. Fuel Administration, will be formed, three men representing the mine workers, three men the mining company.

The duties of the production committees will be to stimulate patriotism; to set a good example of patriotic industry; to arrange for local meetings at which patriotism and increased production alone shall be discussed. It is the task of the production committee to make known the fact that there must be a large increase in tonnage if the United States is not to fail in its war work. It will also make clear that it is the duty of every mine worker to work the full prescribed hours during six days each week; to pass upon the reasons given for absence, short hours worked or any other causes that may have resulted in a loss of tonnage.

The Production Committee will be found by the majority rule, and in case of dispute the production manager is to be the final arbiter.

The qualifications for membership on these Production Committees are that the men should be known to be patriotic; men who on account of relatives or close friends in the war are deeply interested in having our soldiers receive all possible support from those at home; fair-minded men able to pass unprejudiced judgment as to whether the workmen or the company is to blame for absence, short hours or low tonnage. It is also suggested that the largest group of foreign-speaking mine workers should be represented on the committees, and if two nationalities are largely represented that both should have representation on the committee.

In announcing the formation of these Productive Committees James B. Neale, Director of Production, wrote to the local unions of the United Mine Workers of America:

"You mine workers are like a great reserve army which shoulder the burden of a long campaign in which there can be no letup or the whole offensive plan will crumble and collapse. Not a man of you would flinch or hang back if he were in France today and the order came to advance in the face of the enemy's machine guns. In the same way I am sure you will not falter when you realize how great the need is for your best efforts at home. The operators must join you in a patriotic partnership of effort. They must work elbow to elbow with you and keep everlastingly at it, and I am sending to every operator a letter emphasizing his own duty and obligation. Patriots all together. This is the motto to live by day in and day out. The soldier cannot fight to best advantage unless his officers supply him with everything he requires, and so you men cannot get out the coal, full time, six days a week, unless you are given pit cars, props, fair working conditions.

"There is only one way to win. Don't expect the other fellow to do it for you. All you have to think about is your own day's work. This call for more coal means you. Put in your best and your duty is done."

GEO. E. COLLINS SEES IMPENDING CRISIS IN GOLD SITUATION

Geo. E. Collins, an internationally known mining engineer, expresses the following thought with regard to gold production under present conditions:

"I strongly approve the suggestion in your recent circular (H-1), that a permament committee, representing gold-mining and financial interests, be constituted to advice the Government how to forestall the danger which, in the opinion of many, threatens the financial stability of this country and the whole civilized world, unless the production of gold is greatly increased. Personally, I think the circular understates the case; and that gold will inevitably be at a heavy premium shortly after the war ends, if not before.

"In Colorado, the cost of all mining has increased fully 67 per cent; and as very few of the gold mines have ever made such a profit, it stands to reason that the majority must soon close down, unless substantial relief is forthcoming. The losses of the last two years have exhausted the reserves of most mining companies, and they no longer possess any resources from which to meet the monthly losses. It is useless for the Government to appeal now to the patriotism of the gold producer. His patriotism and tenacity have already been exerted to the utmost, in keeping his organization together, at a sacrifice often of his entire capital, long before the Administration began to realize what was happening.

"In Colorado, only a very few mines produce gold as bullion. By far the majority of gold mines produce gold in ore or concentrates, often containing minor values in other metals. Such ore and concentrations have to be transported to custom smelters and cyanidation plants at central points, so that the cost of producing gold is largely influenced by the freight rates and smelter or mill treatment costs. The latter again are in turn increased by higher freight charges, and the gold producer is made to bear the double burden.

"I would further point out that the extinction of gold mining will not merely destroy individual property, but will wipe out entire communities, such as those in the Cripple Creek and Central City district. These communities have already lost most of their younger men, partly to the army, partly to other States where higher wages are paid. The population of Gilpin County has shrunk to one-third of its former limit, and now includes an abnormally large proportion of old men, women and children, who cannot easily find subsistence elsewhere even if forced to leave their homes. The number of elderly widows, supported by the county taxes, is relatively very large. If the county—which has practically no other resources aside from its mines—loses all its revenue, who is to take care of its obligations? The sudden impoverishment and depopulation of large communities has, I believe, no parallel in this country, excepting the similar fate which overtook many Western silver-mining districts after the demonetization of silver in 1893. Such misfortunes should be avoided if in any way possible, for they create a feeling of undeserved wrong, and tend to undermine the confidence of the people in their Government.

"If the sacrifice of gold-mining communities is necessary for the safety of the nation, it must proceed, and those who suffer must acquiesce as cheerfully as they can. But supposing the contrary is true, as many of us believe: that the gold-mining communities are really essential for the maintenance of our civilization, and that they are being sacrificed, to the great future injury of the entire nation, merely because Congress and the Administration are too slow to see and to act?

"If the gold production of the last few years is to be maintained, the following requirements from the absolute minimum:

"(1) Remission of all excess profit taxation, for mines, producing gold. This will not be a direct benefit to most gold mines for they have no profits to tax: but it will tend to encourage capital to speculate in gold mines

"(2) Suspension of the recent order of the Director of Railroads making a 25 per cent advance in freight rates, in so far as such freight rates directly or indirectly affect gold mines. In Colorado this would practically mean the rates on the narrow-gauge railroads, and that serving the Cripple Creek district: in which cases it is hard to discover any rational justification for any freight rate increase at all, as has been clearly shown elsewhere.

"(3) Classification of gold mining as an essential industry, in respect of purchase of necessary supplies and provision of labor.

"(4) Government price regulation of such necessary supplies as explosives and steel, essential for the industry.

"I fear that making our employees immune from draft would not help us very much. They are as patriotic as men in any other line of business, if not more so; and would in most cases refuse to take advantage of such immunity. Some stigma already attaches to the young man of military age who is not serving, and a man should not be asked to submit to this, for the apparent benefit of his employer. Moreover, the labor shortage in gold mines arises largely from the competition of other industries which benefit from war prices, and gold mines cannot hope to pay as high wages as such industries. Again, most of our men of draft age have gone already.

"If increased production of gold is required, as I believe, no such half measures as the above will suffice. Only a premium on gold, directly or indirectly, will bring out an increased output. The only way to increase production without permitting gold openly to go to a premium will be for the Government to take over and operate the unprofitable gold mines as it already does the railways; and absorb the operating losses which must necessarily be expected when gold mines are worked under present conditions as to costs of labor and material.

"These suggestions doubtless appear very radical; and they would have seemed so to the writer himself, less than a year ago. Now, the question in his mind is whether our statesmen will be farsighted enough to choose them as lesser evils than those which threaten ultimately to overwhelm the financial stability of the country.

"In any event, such action as is decided on should be taken immediately. If the mines are closed down, some will fill with water, and of others the workings will cave in. Machinery and equipment will be scrapped or destroyed. The organization and special knowledge will be dissipated, so that subsequently reopening will be a far more difficult and costly matter than affording the necessary relief at this juncture."

REQUIREMENTS FOR COAL EXCEEDING ALL ESTIMATES

With every ounce of pressure possible being put upon increasing the production of coal, requirements continue to mount. It is evident that there will be an insufficient supply for winter necessities unless the utmost conservation is practiced and a system of local distribution inaugurated which will prevent any consumer from obtaining more coal than is sufficient for his wants, with the utmost care and economy being employed in its consumption.

There will not be enough household coal available this winter if last year's waste continues or if unequal local distribution is not prevented.

The Fuel Administration has taken the necessary steps to this end. Householders may be put on coal rations, as in England and France. The coal allowed to each consumer will not be the amount used last year, but only so much as is scientifically found sufficient to heat his house to 68 degrees, providing every conservation rule has been obeyed. The allowance for each will be sufficient for comfort, but the thoughtless and wasteful consumer who finds his allowance gone before the end of the winter will have only himself to thank if he has no fuel with which to heat his house.

Under this system everyone will get his fair proportion of coal. The hoarder will be eliminated. This system was originally worked out and applied in Philadelphia. It has proved an unqualified success, and with modifications suggested by the experiences in that city the adoption and enforcement has been referred to the Federal Fuel Administration in all states.

This plan involves a department of coal allotments in connection with each local fuel administrator's office. Plans for this organization and for the necessary equipment have been completed by the administration in Washington in such detail that the local bureaus can inaugurate the system without delay. The important features of the plan are:

First—A censorship of every order for coal received by any dealer, each order being compared with a figure obtained by very simple yet effective formulas showing the rating of the house where the coal is to be used.

Second—Actual inspection of all doubtful cases and a checking up through inspectors of statements made by householders as to the coal on hand, the space to be heated, and the heating system employed.

Third—An effective refusal to furnish any householder more coal than a scientific analysis shows is necessary if the requisite care is taken in tne heating of the house. Under this system surplus coal will be refused.

All consumers who have obtained a quantity of coal in excess of their allotments or who by deceit or misrepresentation have violated any rules and regulations of the Fuel Administration will be prosecuted.

This system will be drastic and will introduce conditions new to the country. It will be no more drastic, however, than conditions demand in the interest of all concerned. No one will be deprived of coal actually needed for heating, but no one will be allowed fuel for waste or extravagance or to doubly insure a supply of fuel while neighbors on account of this excess are unable to obtain enough.

With a shortage of coal confronting the country, it is only through such detailed regulations that a necessary supply can be insured to all. To delay until the emergency is upon us would be fatal. The Fuel Administration expects everyone to recognize the necessity and the reason for this supervision and to cooperate fully with the local committees entrusted with carrying out the plan.

Unnecessary Attractions Discouraged

Unnecessary attractions in the coal mining fields that might be expected to distract the mine workers from their duty are being eliminated through the efforts of the United States Fuel Administration with the patriotic cooperation of citizens and mine workers.

METHOD OF GOVERNMENT IN LABOR CONTROL OUTLINED

Government control of the recruiting and distribution of unskilled labor for war production is now in effect. No employer engaged wholly or partly in war work, whose maximum force exceeds 100 workers, either skilled or unskilled, can get unskilled labor except through, or under the direction of, the United States Employment Service of the Department of Labor. Railroads and farmers are excepted from this blanket order.

Advertising of any kind for unskilled labor, whether by card, poster, newspaper, handbill or any other medium, is prohibited to employes engaged in war work, in regulations governing the central war labor recruiting program announced by the Department of Labor. The regulations also authorize the continued use of the field recruiting forces of war industries in getting unskilled labor under strict Federal control, rendering impossible the enticing of labor that during the past year and more has demoralized the labor market, created an enormous turnover and held back production of war materials.

Returns received up to the present by the Federal Employment Service show a shortage in the war industries of approximately 500,000 unskilled workers; and the complete returns are expected to double this figure. Every war industry in the country has been requested to telegraph its present unskilled labor requirements and those of the next two months to the Department of Labor and to inform the local office of the U. S. Employment Service of its day-to-day needs.

The half million unskilled laborers now known to be required constitute the total of the first assignment of quotas which the States will be called upon to furnish. Each State director of the Federal Employment Service will receive his State's quota and will reapportion it to local districts. When the returns from the war industries are complete, a supplementary quota will be allotted each State. It will be determined on the same proportionate basis.

The recruiting of the local quotas will be under the general direction of community labor boards, composed of a representative, each, of the United States Employment Service and of the locality's Employers' and employes. The branch offices of the Federal Employment Service will be used in securing workers and the volunteer agents of the Public Service Reserve—the Labor finding arms of the Employment Service—will assist. The reapportionment of State quotas will be done by the State directors with the assistance of State advisory boards, consisting of the State director and two representatives each of a State's employers and workers.

Violations of the injunction against private recruiting are expected to be rare. Whenever it is found impossible to deal effectively locally with a violation, the facts will be reported through the Director General of the Employment Service at Washington to the Department of Labor which will investigate. Where complaints are well founded, the department will secure appropriate action by the War Industries Board, which has power to shut off materials, and by all other enforcing agencies of the government.

For the time being, no restrictions are placed upon employers engaged in war work in recruiting their own *skilled* labor, other than that they should so conduct their efforts as to avoid taking or causing restlessness among men already engaged in other war work, including railroads, farms and mines, as well as work covered by direct or subcontracts for government departments. The State directors of the Employment Service have been instructed to give all possible assistance to employers engaged in war work who desire to recruit skilled labor.

Furthermore, war employers, for the present, are under no restrictions as to advertising for skilled labor, other than that all such advertising shall be so conducted and designed as to avoid creating unrest among men already in war work.

Local offices of the United States Employment Service may advertise for the kinds of men needed in war work, without mentioning wages offered or names of employers.

Employers engaged in *non war* work are permitted to employ methods of recruiting and advertising, so long as they do not in any way compete with the government or employers engaged in war work.

The regulations permit employers engaged in war work to hire unskilled workers who apply at the plant without solicitation, either direct or indirect. Where war employers are authorized to continue the use of their recruiting forces to get unskilled labor, they are prohibited by the regulations from the use in any case of any fee-charging agency or agent, or any agents or labor scouts who are paid for their work on a commission basis.

Authorizations for the continued use of recruiting forces will be granted by the state directors of the States in which the industries having them are operating, and the State directors will have control over such forces. Permission to recruit unskilled labor in a State other than the one in which the work is located may be obtained from the Department of Labor at Washington on the recommendation of the State director for the State in which the men are needed. No unskilled laborers may be moved from one employment district to another within a State without the State director's authorization; and none may be transported from one State to another without the Department's authorization. When such movements are authorized employers must file a statement with the nearest Federal employment office showing the number of men transferred, the wages offered and other terms and conditions of employment promised the men.

IMPORTANT CHANGES MADE IN BUNKERING REGULATIONS

A recent ruling revises former orders and regulations relative to the required quality and grades of coal for bunkering steamships at Atlantic and Gulf ports. The purpose of the order is to improve the quality and enlarge the quantity of coal for ships in the Atlantic trade.

Among the changes of consequence is the designation of the Tug River field of West Virginia as a field apart from the Pocahontas field, and admitting as permissible bunker coal the coal originating in the Pocahontas, New River and Tug River fields which has been or may be classified by the Tidewater Coal Exchange for consignment to pool No. 1 or pool No. 2 at Hampton Roads; also specifying as permissible bunker coal that coal which has been or may be classified for consignment to pool No. 44 at Hampton Roads. This coal consists of lump and egg coal, but not nut coal, originating in these fields.

To improve the quality of coal for overseas trade at New York, Philadelphia and Baltimore, the order directs the admission of coal originating at mines on the acceptable list of the United States Navy, which has been or may be classified by the Tidewater Coal Exchange for consignment to pool No. 1, when used by itself and not mixed with coal from any other pool. Also it admits coal originating at mines on the Pennsylvania, Baltimore & Ohio and Western Maryland Railways, or any of their connecting lines, which has been or may be classified by the Tidewater Coal Exchange for consignment to pool No. 9, when used by itself and not mixed with coal from any other pool.

Coal originating on the New York Central Railroad or any of its connecting lines which has been or may be classified by the Tidewater Coal Exchange to pool No. 4 and pool No. 10, and coal originating on the Pennsylvania, Baltimore & Ohio or Western Maryland, or any of their connecting lines, for consignment to pool No. 10, as well as pool No. 1 and pool No. 9 coal is admitted as permissible bunker coal for coastwise trade.

Coal for "overseas trade" is described as including coal furnished ships engaged in trade between ports of the United States and ports of foreign countries, either trans-Atlantic or via Panama Canal, and between ports of the United States and the Panama Canal Zone or Porto Rico, and coal furnished to all navy vessels and army transports of the United States and its allies, whether engaged in trans-Atlantic service or otherwise.

Coal intended for "coastwise trade" includes coal furnished ships in service between Atlantic ports of the United States and between such ports and Canada.

The order prohibits the shipment of "slack" or sizes of coal smaller than run of mine to any port for bunker purposes or to any pool except when special permission of the United States Fuel Administration has been obtained.

FEDERAL TRADE COMMISSION PROBES PRODUCTION COSTS

The Federal Trade Commission is now conducting or has just completed investigations of production costs into some 20 industries for the confidential use of the war branches of the Government.

Of these, the Commission's Economic Division reported, two were undertaken for the Fuel Administration, 12 for the War Industries Board, 3 for the Food Adminisetration, and one each for the Railroad Administration and the Army.

Complete figures and data on the cost of production are being furnished by the Commission. Much of this, it is expected, will be used in determining fair prices on commodities purchased by the Government and in some instances the general public.

The investigations embrace cost inquiries into bituminous coal, petroleum, coke, pig iron, ingots, rolled steel products, copper, zinc, nickel, lumber, sand and gravel, locomotives, canned foods, textiles, military food supplies, meats and grains.

D. W. COOKE IS APPOINTED NEW YORK FUEL ADMINISTRATOR

United States Fuel Administrator Garfield has announced the appointment of Mr. D. W. Cooke as Federal Fuel Administrator for New York. Mr. Cooke is vice-president of the Erie Railroad Company. To assume his new duties with the Fuel Administration, he has resigned his position as chairman of the Traffic Executives of the Allies, but will remain a member of that organization, and will represent it on the Exports Control Committee. Mr. Cooke, in company with Fuel Administrator Garfield, and operating executives of the railroad and Fuel Administrations, spent all day Monday visiting the harbor facilities of New York City, and inspecting all coal piers in New York harbor.

Dr. Garfield announced at the same time the appointment of Mr. Charles E. Robertson and Mr. Reeves Schley as Assistant Federal Fuel Administrators for New York. The former has been a deputy under Mr. Wiggin and a member of his Advisory Committee. The latter has been Federal Fuel Administrator for New York County.

STEPS TO SPUR PRODUCTION PRAISED BY GEO. OTIS SMITH

Geo. Otis Smith, director of the U. S. Geological Survey, has written the following letter to A. B. Conkling, Secretary of the Graphic Producers Association of Alabama:

Since talking with you the other afternoon about the condition of the graphite industry in Alabama, I had the opportunity of learning a little about the get-together movement among the Southern pyrite miners. As all of you men who are trying to make the resources of the South available for the Nation's use at this time of need have much in common in your problems whether you are mining graphite, manganese, or pyrite, I think your association might be encouraged by the success which promises to attend the efforts of the pyrite producers and on that account I am passing on to you some of my impressions.

Mr. Fuller Calloway tells me that the pyrite miners are discovering that the principle of helping each other is working out along these lines: without actually pooling all of their product, as I understand it, they are to get the benefits of the pooling method in so far as there is need; if by shortage of labor or equipment trouble any mine is unable to meet its orders in any market an arrangement will be perfected for the nearest mine having a surplus to immediately fill that order. I take it the logical move eventually will be for a certain distribution of new orders among the operators according as they may be best situated and equipped to handle the same.

If properly managed it seems to me this association must result in the industry standing as a unit in meeting promptly and fully the needs of the consumer to the better satisfaction of the consumers. It will result in the stronger, to some extent, standing behind the weaker operators and furnishing them with the backing they need in meeting their market obligations. I am reminded of the fact that two or three years ago in some of the coal regions the policy of district coal associations was somewhat similar, in that in case of a mine breakdown or a strike, the nearest operators unaffected by such trouble would immediately take over outstanding orders, not for the sake of stealing away a good customer, but for the purpose of keeping the unfortunate operator in business and in good standing with his market. Of course in any such association the practical logic is that each operator may have similar trouble himself at any time and this is a kind of mutual insurance against losing one's market. Personally I believe that such practices are good under all conditions and that the industrial world is coming to that way of thinking. However, the present time is one when we must consider primarily the needs of the country for an increased and more reliable output of domestic products; and again it matters not whether that product is manganese, pyrite, or graphite.

The immediate effect of the organization of the pyrite association as I learn it from Mr. Fuller Calloway, whom you doubtless know as one of the most progressive thinkers among your business men of the South, was the placing of orders for pyrite by the fertilizer interests at a notable increase over the previously quoted price. Now this suggests the proper and necessary attitude of any association of this kind toward prices. Regardless of what laws may be on the statute books, you and I will agree this is not the time to seek excessive profits by seeking prices higher than the actual industrial conditions demand. As Mr. Calloway told me regarding the pyrite association their feeling is an absolute willingness to accept whatever price may be considered fair by the War Industries Board or any other agency representing the Government. An association which rests its case on such a statement surely cannot be interpreted as being in restraint of trade.

The advantage of combination by you producers is the cooperation that is thereby made possible in the matter of insuring an adequate supply, and I suspect that the acid makers were willing to pay a somewhat higher price when they knew that not one mine operator but all the mine operators stood behind the filling of their orders. It is just this kind of cooperation moreover that will help the country by increasing the output of these absolutely essential minerals and to accomplish this I feel that you men who may represent the stronger companies, stronger whether backed by mere capital, or by longer experience, or by greater efficiency, must be unselfish in the support which you give to your associates in the industry. Of course at this time unselfishness of this type is expressive of the highest patriotism which we know is becoming more and more widely distributed throughout the country, but at any time I think this kind of combination for the good of all is profitable and is going to supplant the cut-throat competition that we have had in America, competition which was expensive and did not in fact very well serve even the interests of the few because sooner or later each competitor came to know the feeling of the edge of the knife.

I have simply jotted down these thoughts that have come to me because I feel that you all, in fact we all, are working upon the same problem. Increased output is the one thing we must keep before our eyes and I believe from our previous conference about the graphite industry you know that I realize that you producers must be supported by having the consumers meet you half way. In a chapter which I recently contributed to a book on reconstruction, now in press, I have one section entitled "Equitable distribution of net proceeds" in which I emphasized the need in making the production of the raw material receive its share of the profits. Of course you know better than I that wherever the margin of profit for mining is small the tendency will be toward exploitation and waste, in that only the richest and most accessible part of the deposit will be mined. Therefore it is not only to the interest of you graphite and pyrite miners but also to the public interest that the natural resources of your State should receive their share of the returns. It is for this reason that I have been especially interested in your efforts to put your industry on a basis that will both meet the present emergency and be of lasting benefit to your State and to the consumers of graphite throughout the country.

I think in the recent hearings before the Senate Committee on Mines and Mining I at least suggested that a larger share of the profits might go to the mine operator when the margin between pyrite and sulphuric acid prices or between the price of manganese ore and of ferromanganese is so large, or when we consider the apparent discrepancy between the possible profits of some of the graphite producers and the rather large profits of the strongest of the graphite consumers. It is to the public interest that the natural resource should receive its share of the return.

If it will help in the least the good American cause of stimulating domestic production, please feel free to quote me as urging you operators to get together in every possible way to the end that every graphite producer will be helped to produce at the lowest possible cost and to sell his product at a fair profit. The country needs American graphite and the graphite business deserves a living wage.

NO COAL FIRES FOR COUNTRY CLUBS' GUESTS THIS WINTER

The United States Fuel Administration has issued an order establishing a regulation to restrict fuel consumption by private country clubs.

During the period from December 1, 1918, to April 1, 1919, no private country club shall burn or use fuel of any description, including coal, coke or natural gas, fuel oil or other petroleum products, or use power derived from any such fuel for purposes of heating or cooking, excepting:

1. This regulation shall not be construed to prevent or restrict the use of wood or peat for heating or cooking purposes by any country club when such wood or peat is available without the use of railroad transportation.

2. Any private country club may use or burn fuel other than wood or peat for heating or cooking purposes on receiving a permit for such use from the United States Fuel Administration. Such permit may be granted upon receipt of a certificate from the Fuel Administrator for the State within which the country club applying therefor is located, that the fuel can be spared and that it is not against the public interest to grant such permit.

The full penalties of the Lever Act are prescribed for violations of the order.

Curtail Pleasures to Boost Production

Since coal production records began to be broken in various of the leading districts, the spirit of emulation seems to be catching throughout the entire production field. In nearly every field the mine workers are a unit in consenting to make a sacrifice of many of their usual holidays and diversions. Wherever there seems to be a danger of taking men away from the vital task of mining more coal the mine workers are doing their part by making the necessary sacrifice.

At Barnesboro, Pa., the center of an important mining district, one of the annual events enjoyed by the mine workers has been the annual picnic of the Northern Cambria Scottish Club. Word has been received by James B. Neale, Director of Production, U. S. Fuel Administration, that the Northern Cambria Scottish Club has decided to discontinue this annual picnic during the period of the war so as not to interfere in any way with local production.

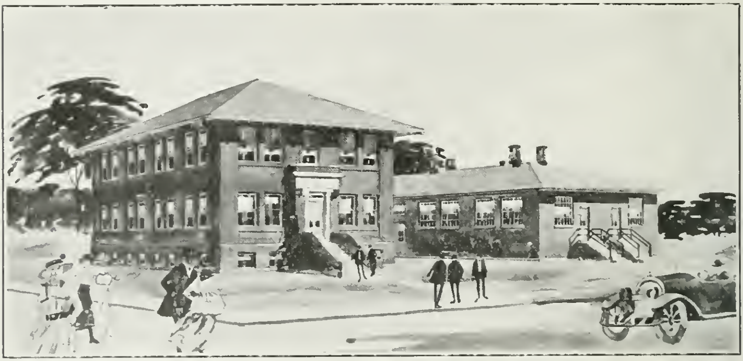
In other producing districts throughout the country there are many public gatherings, county fairs, firemen's picnics and such like diversions scheduled. Wherever any of these seem to threaten to divert the mine workers from their patriotic tasks it is desired by the Fuel Administration that they be concelled.

Coke Prices

By an order of the U. S. Fuel Administration the maximum price per ton of 2,000 pounds f. o. b. cars at the point where produced, for mixed sizes of properly screened and cleaned beehive or by-product coke suitable for domestic purposes shall be $1.00 less than the maximum government price for selected foundry coke f. o. b. cars at the same point.

The production of domestic fuel by screening and cleaning the accumulated breeze piles at beehive and by-product coking plants has recently grown to such an extent that the United States Fuel Administration found it necessary to establish a maximum price for the product.

PETROLEUM EXPERIMENT STATION



The above illustration shows the Bureau of Mines Petroleum Experiment Station at Bartlesville, Okla., as it will appear when the buildings now under construction are completed. These buildings are being erected by a fund donated by public-spirited oil men of Oklahoma and handled by the Bartlesville Chamber of Commerce. The site of four acres on which the station is located is the gift of George W. Keeler, of Bartlesville.

The two structures are for office quarters and laboratories. The administration building will be 37 feet wide and 57 feet long, and have two floors and a basement. Office space for twelve technical men will be provided, and there will also be included an exhibition room, a conference room and a library. Instructive samples and specimens will be set up in the exhibition room, and it is hoped the library eventually will be one of the best in the country on the subjects of petroleum and natural gas. This library is expected to prove a most useful adjunct to the oil and gas men of the mid-continent field.

The laboratory building will be 42 feet wide by 102 feet long and of one story. It will house the well equipped chemical and technical laboratories and a machine shop. Many investigations that cannot well be conducted in this building will be carried on in the open or under temporary structures on the station grounds. The four acres provide ample space for such work, as well as for future expansion of the permanent structures.

This experiment station has been established by the Bureau of Mines for what may be termed practical research in petroleum and natural gas to the end of increasing efficiency and reducing wastes. Problems concerned with the drilling of wells, the production of oil or gas, storage of oil and transportation of oil and gas, the refining of oil, and the utilization of oils and gases will be considered. To find out what investigations were most needed, circular letters to oil and gas men have been sent out requesting their opinions. The station is for public service, and it is the desire to meet the public needs as fully as the facilities of the station will permit. Much of the work is expected to be cooperative with companies actively engaged in the oil and gas industries.

New Sized Screenings Regulations

To permit the making of a grade of bituminous coal to take the place of anthracite which has been withdrawn from the Middle West, and which is specially adapted for use in magazine or base burner stoves, the United States Fuel Administration has adopted regulations and prices for sized screenings.

For all special sizes passing over a mesh over one-half inch in size, the mine price for prepared coal is allowed. For special sizes passing over one-quarter inch and under one-half inch in size, the mine price for run of mine coal is allowed.

For all fine sizes passing through a mesh one-half inch or smaller, the price fixed is 30 cents per net ton less than the prevailing price for standard screenings. If fine screenings or "carbon" passing through one-half inch or smaller mesh as the result of producing special sized screenings are mixed with other coal, the selling price shall not exceed the applicable government rice less 30 cents per net ton.

WAR LABOR BOARD RULES IN BETHLEHEM STEEL CASE

The National War Labor Board has rendered its finding in the case of the Bethlehem Steel Company, Bethlehem, Pa. This decision, one of the most important in many respects which has been reached in the history of the board, grants the workers the right to organize and to bargain collectively, orders the revision or complete elimination of the bonus system now in operation at the plant, the revision of piece work rates and the establishment of a designated, guaranteed minimum hourly wage rate for some 5,000 machine shop workers in conformity with one of the scales now being applied by the War or Navy Departments; applies the basic eight hour day with payment of time and half time for all overtime and double time on Sundays and holidays, and provides for overtime payment to piece workers; calls upon the company to pay men and women alike when performing the same work and to allot women no tasks disproportionate to their strength. It provides that the piece work rates shall be revised by the plant management cooperating with committees of the workers and representatives of the Ordnance Department, which is the department principally interested in the product of the plant; and also that a permanent local board of mediation and conciliation, consisting of six members, three chosen by the company, three by the workers, be established to effect agreements on future disputed points and on disputed points not covered in the award. This board is to be presided over by a chairman to be selected by and to represent the Secretary of War. In addition, an examiner of the War Labor Board is to be assigned to interpret and enforce the award, being specifically instructed to investigate and report to the board upon all charges of discrimination against union men by the company.

LIGHTLESS NIGHTS TO SAVE 1,000,000 TONS COAL YEARLY

According to records kept by representatives of the United Fuel Administration, the saving of more than 60,000 kilowatt hours, which is equal to above 100 tons of coal, was made on the first night of the "Lightless Nights" in the Borough of Manhattan, New York City. The saving will be much greater during the winter when the daylight saving hour will be restored and darkness begins very much earlier.

The figures given indicate a coal economy through "Lightless Nights" of 40,000 tons a year in the Borough of Manhattan alone. From the data now on hand, the Fuel Administration's Bureau of Conservation estimates a national saving through the operation of the "Lightless Night" order of more than 1,000,000 tons of coal a year.

BUREAU OF MINES SPEEDS WORK ON WAR MINERALS

For the purpose of stimulating the production of the necessary war minerals, a special appropriation was recently made by Congress for the Bureau of Mines. This emergency war service has been organized by the Bureau of Mines as a special branch of the work under the name of War Minerals Investigations. Recently, Mr. J. E. Spurr, formerly a member of the Committee on Mineral Imports and Exports, accepted the position of executive in charge of this work while remaining as Mineral Adviser to the Shipping Board. The work is organized on a temporary basis, but will be continued, if need be, for the period of the war.

The province of the War Minerals Investigations cover:

(a) Minerals of special war interest by reason of their not being already produced in the United States in sufficient quantities for war purposes.

(b) Improvement in utilization of minerals for war purposes.

The investigation covers the broad field of mining, transportation, ore-dressing, smelting, and marketing. On the one hand this field touches that part of the geological survey which deals with mining, geology, and mineral statistics, and on the other with that part of the War Industries Board which deals with mineral raw materials which are the basis of war industries.

The program has been framed and is being carried on in the most practical manner from the sole point of view of war exigencies. The stimulation of domestic production of those metals and minerals of which there is now a shortage, and utilization and economy of these metals and minerals will be the two main purposes of the work. Stress is being laid on the different metals or minerals in the order of the national need.

MANGANESE IMPORTS FROM ASIA ARE CUT OFF

Importations of manganese ore from Asia and Australasia have, by a new ruling, been prohibited as to ocean shipments made on and after July 20; and, to make this ruling effective, all outstanding licenses for the importation of manganese from those countries have been revoked as to ocean shipment on and after July 20, 1918.

Adequate supplies can be obtained, it has been found, from sources nearby, entailing far less strain upon the tonnage resources of the United States during the present difficult period than shipments from the distant ports in Asia and Australasia.

GOVERNMENT'S CONTENTION SUSTAINED IN HARVESTER SUIT

The Department of Justice is advised that at the ensuing term of the Supreme Court the International Harvester Company will dismiss its appeal from the decree of the District Court adjudging it a combination in restraint of trade and ordering its dissolution. The effect will be to leave the decree of the District Court as the final decree in the case.

The parties will then join in asking the District Court to enter an order to carry the decree into effect, providing substantially as follows:

(a) The Harvester Company to dispose of the harvesting machine lines known under the trade names of "Osborne," "Milwaukee" and "Champion," the trade names themselves, and all patterns, drawings, blue prints, dies, jigs and other machines and equipment used in the manufacture of these lines to a responsible and independent manufacturer or manufacturers of agricultural implements.

(b) The Harvester Company also to dispose of the plants and works at Springfield, Ohio, and Auburn, N. Y. where the Champion and Osborne lines of harvesting machines are manufactured.

(c) If not otherwise disposed of within one year after the close of the existing war the before-mentioned lines of harvesting machines etc. to be sold at public auction to the highest bidder.

(d) The Harvester Company to be prohibited after December 31, 1919, from having more than one representative or agent in any city or town in the United States for the sale of harvesing machines or other agricultural implements.

(e) If at the expiration of eighteen months after the close of the existing war the foregoing measures have not proved adequate in the opinion of the Government to restore competitive conditions in trade and commerce in harvesting machines and other agricultural implements and to bring about a situation in harmony with law, the Government to have the right to such further relief in the present case as may be necessary to that end.

This case presented the most fundamental issue which has arisen under the Sherman act since its constitutionality was determined. The issue is this: The Government contended that combinations of competitive units on a scale large enough to make the resulting restriction of competition direct and substantial are unlawful without more, on the theory that it was not the policy of the Sherman act to wait until the evils of undue concentration of commercial power have already come to pass, but rather to strike at once at undue concentration of commercial power itself. The defendants contended, on the other hand, that such combinations are not unlawful unless the Government goes further and shows in each particular case that the combination has wrongfully used its power, as, for example, by unduly enhancing prices, by unduly limiting the quantity or lowering the quality of product, by unduly lowering wages, etc.; in other words, that monopolistic combines are not unlawful so long as they use their power benevolently.

The effect of the present action is to sustain the contention of the Government, on which the decree of the court below was based.

Allege Oil Trade Abuses

Complaint was filed with the Federal Trade Commission by one of the oil companies of Shreveport, La., alleging unfair practices on the part of one of its competitors.

An investigation was made by the Federal Trade Commission, and the complaint, together with the result of the Commission's investigation, was referred to the United States Fuel Administration.

A hearing was held in Washington by the Oil Division of the Fuel Administration July 11, 1918, resulting in instructions being issued July 19 by the Fuel Administration directed to all oil companies operating in Shreveport and vicinity as follows:

"Pending the issuance of a general order you are directed as follows: Make no allowance to retailers on gasoline or kerosene exceeding one cent per gallon. Make no drayage allowance to consignees on drum or barrel shipments. No permanent equipment shall be given or loaned, and sale or rental must be based on a fair value. give no premiums, secret fees or rebates. Coupon books (if sold) not more than two per cent discount for cash. Neither buy nor rent premises nor equipment from existing retailers. Furnish retailers no employees. Pay retailers no salaries or commissions."

It is the intention of the Fuel Administration to issue, after full investigation, a general order regulating the trade practices of oil marketing companies throughout the United States. The oil industry will be asked to give prompt consideration to all existing trade practices and to advise the Oil Division of the Fuel Administration in regard thereto. This may be done either direct or through the National Petroleum War Service Committee or its subcommittees throughout the country. It is hoped that by this means the order when issued will be as fair and as far-reaching as possible, so as to bring about a correction of whatever discriminations and abuses may now exist.

CENTRAL RECRUITING OF LABOR BEGUN

Unskilled Workers Being Handled Under New Policy In Effort to Increase Industrial Efficiency

The National Government assumed control of the recruiting of civilian workers for war industry on August 1. This step calls for important readjustments of the traditional industrial policy. It is estimated that the industry of the United States employs some 30,000,000 unskilled workers. In ordinary times, the labor "turn-over" of the manufacturing establishments of the country is, on the average, 300 per cent. That means that every establishment which requires the services of one hundred workers is accustomed to hire three hundred workers during the course of a single year. Since the war this endless migration of workers has been multiplied many times. In some cities the labor "turn-over" has gone as high as 3,000 per cent.

The waste entailed by such a ceaseless ebb and flow hits workers and employers, but, most of all, at this time it weakens the military might of the American people. The production of ships and of munitions can be largely increased if the disastrous labor "turn-over" be eliminated, and civil man-power wisely distributed and husbanded. The conditions and agencies which cause avoidable labor "turn-over" must be eliminated.

The Department of Labor, through the United States Employment Service, has taken over, on the instructions of the President, the exclusive placement of all unskilled labor required by war industry. Private labor agencies may no longer place unskilled workers. Individual employers may no longer solicit workers except through the United States Employment Service.

The Employment Service is thus given a duty comparable only to that borne by the War Department when the Selective Service Law was put into operation. But this policy must be enforced without military authority. We must rely upon the understanding, the cooperation and the good will of the American people.

In every industrial state, boards, equally representative of employers and employes, are being created to assist in rendering effective the employment system. In every community where conditions make such an organization possible, community boards are being called into existence. These representative groups, together with the officials of the United States Employment Service, will be responsible for the voluntary mobilization of labor.

The administration for this great task has had to be hastily improvised; the machinery for its enforcement is still in process of formation. The United States Employment Service comes to the country not with a completed organization nor with a perfected machine. It has been quickly brought into being in response to the growing necessity for more and more of the materials of victory. The Employment Service, in cooperation with industry and labor, hopes to be able to end the "stealing" of labor by competing concerns. It will be able to abolish the wanton stimulation of labor turn-over by men in search of profit. But it may not be able immediately and without delay so to distribute the workers of America that the actual shortage of labor will be reduced to the lowest possible figure.

"MODIFIED MINE RUN" COAL PRICES ARE FIXED

Must Not Exceed Applicable Government Mine Prices for Screenings at Mine, Says Fuel Administration.

A recent order of the U. S. Fuel Administration, provides regulations fixing the prices of "modified mine run" coal f. o. b. the mines. "Run of mine" coal describes the product as it comes from the mine without going through the process of separation into sizes. "Modified mine run" coal is described as "run of the mine from which a certain portion of lump has been screened."

The regulation fixes the prices for "modified mine run" at not to exceed the applicable government mine prices for screenings at the mine where such "modified mine run" coal is produced plus the following percentages of the margin or difference between the applicable government mine prices for mine run and screenings at such mines:

Run of mine passed through 2-inch openings —40 per cent of such margin.

Run of mine passed through 3-inch openings—75 per cent of such margin.

Run of mine passed through 4-inch openings —90 per cent of such margin.

Run of mine passed through 5-inch openings—95 per cent of such margin.

Run of mine passed through 6-inch or larger openings shall take the applicable government price for run of mine.

Kentucky Coke Prices

The maximum price per ton for coke made in Pike County, Kentucky, except at the plant of the Marrowbone Mining Co., has been fixed at $6.50 for blast-furnace coke and $7.50 for 72-hour selected foundry coke.

REVISION OF PRICES FOR OHIO COAL MADE

State Divided Into Eight Districts and Former Classifications of "Thick Vein" and "Thin Vein" Eliminated.

The producing districts within the state of Ohio and the prices of bituminous coal mined therein have been revised by an order of the U. S. Fuel Administration. In making the revisions under the present order the former classifications of "thin vein" and "thick vein" coal have been eliminated, the old system being intricate and involved.

Under the new classifications the state has been divided into eight districts and the prices have been fixed for run of mine, prepared sizes and slack or screenings, in the sequence given.

District No. 1, County of Meigs and Townships of Cheshire and Addison in County of Gallia	$2.35	2.60	2.10
District No. 2, Counties of Vinton, Jackson, Lawrence, Sciota, Pike and County of Gallia except Townships of Cheshire and Addison	$3.00	3.25	2.85
District No. 3, Counties of Hocking and Athens, and Townships of Coal and Monroe in the County of Perry and Townships of Homer in the County of Morgan	$2.10	2.35	1.85
The Bailey Run or No. 7 Seam	$2.50	2.75	2.25
District No. 4, Counties of Washington and Noble, County of Morgan except Township of Homer, and County of Perry except Townships of Coal and Monroe	$2.50	2.75	2.25
District No. 5, Counties of Guernsey and Muskingum and Township of Warren in Belmont County	$2.25	2.50	2.00
District No. 6, Counties of Holmes, Tuscarawas, Carroll, Coshocton, and Townships of Monroe, Franklin, Washington and Freeport in County of Harrison, and Townships of Washington and Yellow Creek in County of Columbiana, and Townships of Brush Creek, Saline, Springfield, Ross and Knox in County of Jefferson	$2.50	2.75	2.25
District No. 7, Counties of Trumbull, Portage, Summit, Mahoning, Medina, Wayne and Stark, and County of Columbiana except Townships of Washington and Yellow Creek	$3.00	3.25	2.85
District No. 8, County of Monroe, County of Belmont except Township of Warren, County of Harrison except Townships of Monroe, Franklin, Washingington and Freeport, and County of Jefferson except Townships of Brush Creek, Saline, Ross, Knox, and Springfield	$1.90	2.15	1.90

To the above prices there may be added the 45 cents allowance for wage increase if the producing companies are entitled to add such allowance under the President's order of October 27, 1917.

COMMUNITY LABOR BOARDS TO APPLY FEDERAL POLICIES

The establishment of Community Labor Boards to have general jurisdiction over the recruiting and the distribution of labor, in cooperation with the U. S. Employment Service of the Department of Labor, has been announced.

These boards will localize in each industrial region the enforcement of the policies of the United States Employment Service. In the mobilization of the army of producers, they will apply the federal policies as the draft boards put into operation the selective conscription act. In order that the boards may represent adequately their communities, employes and employers will each select representatives.

Community Labor boards consisting of one representative of employers and one representative of employes with a third representative of the United States Employment Service are now being established wherever the industrial situation justifies it.

The members of the board will be appointed by the state directors of the U. S. Public Service Reserve. Chambers of commerce and manufacturers' associations will be asked to nominate industrial management representatives; state and city federations of labor will nominate the labor members while the third member, who will be the presiding officer, must in every case be a representative of the United States Employment Service.

The community labor boards will assist in mobilizing the labor of their respective communities, but especially they will decide upon the relative needs of local establishments seeking labor and where the supply is less than the demand they will prorate the existing reserve.

RESTRICTIONS APPLYING TO RECRUITING OF LABOR

The general restrictions now applying to the use of private labor recruiting forces follow:

1. Private recruiting will be under the full control and direction of the State director of the United States Employment Service for the State in which the recruiting is done.
2. No permission for the use of private recruiting forces will be granted, except upon recommendation of the Director General of the Employment Service to the State Director for the State where the men are to be used. The recommendation will be given, provided the men cannot be secured locally and, in the judgment of the State director, there is serious need of additional labor.
3. Labor can be moved from one State to another or within a State only on the authorization of the State director of the Employment Service for the State where the movement originates.
4. A report of every man moved shall be filed with the U. S. Employment Service in the recruiting district from which he is moved.
5. All men so moved will be credited on the quota required to be furnished by the recruiting district from which they are secured.
6. Private recruiting forces shall not make use in any way of the Employment Service or of any fee-charging agent or agency.
7. Every permission is at any time subject to withdrawal or restriction by the State director who granted it.

Praises "Heroes of the Pick"

Secretary of War Newton D. Baker, deeply impressed with the patriotic spirit manifested by the one hundred and fifty mine workers of Mercer County, Pa., who, though retired on account of age, went back to work as soon as they learned of the country's vital need for more coal, wrote the following letter of appreciation to United States Fuel Administrator Harry A. Garfield:

"I was greatly impressed when I learned recently about one hundred and fifty retired miners in Mercer County, Pa., recognizing the nation's urgent need of increased fuel, had volunteered to go back to the mines and serve their country there.

"This is the spirit which free and liberal government always engenders and which insures the triumphs of our arms and aims. I should like, through you, to send a personal greeting to these heroes of the pick."

Those Having Wood May Get No Coal

The United States Fuel Administration has suggested to State Fuel Administrators that in those states where a plentiful supply of wood is available, the sale, shipment and distribution of coal for domestic purposes to persons residing outside of cities or incorporated towns may be prohibited, except under special permit.

State Fuel Administrators are advised that if they find as a result of prohibiting the use of coal outside of cities, excessive prices are demanded by wood dealers, they should be dealt with under the authority conferred by the Lever Act.

The authority for prohibiting the sale, shipment and distribution of coal to domestic consumers, it is pointed out, is contained in the order appointing State Fuel Administrators to office.

There have just been issued two very important and interesting publications by the West Virginia Geological Survey, Morgantown, W. Va. These publications are described in the following extract from the printed circular of the Survey and the reader is also told how to secure the publications:

28. Detailed Report on Barbour and Upshur Counties and Western Randolph, by D. B. Reger, with an Introductory Discussion of Deep Well Records, including the Deepest Well in the World, by I. C. White, and a Discussion of Deep Well Temperatures by C. E. Van Orstrand, issued under date of July 1, 1918, containing 867 pages + civ pages of introductory matter, and illustrated with 53 half-tone plates and 43 figures or zinc etchings in the text accompanied with a separate case of topographic and geologic maps of the entire area in two sheets, one covering Barbour County, and the other Upshur County and the coal area of Randolph west from Big Laurel and Rich Mountains. The whole region is underlain by the coal measures in which are several valuable beds, all of which are described, analyzed, and their areas mapped in this report. Price, including case of maps, delivery charges paid by the Survey, $3.00, but for combination price with other publications see below. Extra copies of geologic map of Upshur and Western Randolph, $1.00; of Barbour, 75 cents. Extra copies of topographic map of Upshur and Western Randolph, 75 cents; of Barbour, 50 cents.

31. Revised Figure Showing Bituminous Coal Beds in West Virginia, zincograph section, or cut, 6 inches wide and 40 inches long, showing the names, number and intervals separating the coal beds of West Virginia, and extending from the top of the Dunkard Series to the base of the Pottsville Series on the scale of 1 inch to 200 feet, compiled and revised to July 1, 1918, by Ray V. Hennen, assistant geologist. Price, 25 cents.

WHITE AND PEALE HEAD NEW BUREAU OF LABOR

At a recent conference held in Washington, between the United States Fuel Administrator, Harry A. Garfield, and the international officials of the United Mine Workers of America, a complete understanding was reached wherein all questions pertaining to labor in the coal mining industry will remain under the jurisdiction of the United States Fuel Administrator. This is in accordance with an understanding previously reached between the Secretary of Labor and the United States Fuel Administrator.

In order that this arrangement may be made effective, the United States Fuel Administrator has created a Bureau of Labor, to which all matters relating to Labor controversies will be referred for settlement. The United States Fuel Administrator has appointed Mr. John P. White, formerly president of the United Mine Workers of America, and Mr. Rembrandt Peale, coal operator for Central Pennsylvania, joint heads of this bureau, with power as his deputies to consider and dispose of all matters concerning labor in the coal mining industry properly coming before the Fuel Administration and subject to the procedure prescribed in existing joint agreements.

The following statement of principles was made by Mr. H. A. Garfield, United States Fuel Administrator, at conferences at which were present Mr. Frank J. Hayes, president, Mr. John L. Lewis, vice-president, Mr. William Green, secretary and treasurer of the United Mine Workers of America, and Mr. John P. White and Mr. Rembrandt Peale representing the Fuel Administration, all of whom acquiesced in the statement as expressing their understanding of the principles followed by the United States Fuel Administration and by the International Union of Mine Workers in settling questions relating to labor in the coal mining industry, it being understood that wherever the Federal Government is called upon to intervene or of its own motion intervenes in the settlement of such questions, whether in organized or unorganized fields, jurisdiction shall remain for the present, and until otherwise arranged, in the hands of the United States Fuel Administrator:

"The United States Fuel Administrator understands:

a. That no strike shall take place pending the settlement of any controversy until the dispute has been reviewed and decided by him.

b. That recognition of the Unions shall not be exacted during the continuance of the war except where now recognized by collective bargaining.

c. That where, by joint contract between employer and employed, machinery is provided for the settlement of controversies, United States Fuel Administrator shall not be required to intervene or to mediate until such means have been invoked and the remedy exhausted without reaching adjustment.

d. That where the United States Fuel Administrator intervenes, substantially, the principles, provisions and practices laid down in the Maryland and Upper Potomac Settlement of May 6, 1918, shall be accepted by the workers, and employers and their chosen representatives, as sufficient.

On the basis of the foregoing understanding which he regards as just and imperative in the present crisis, the United States Fuel Administrator has insisted and will continue to insist that any adjustment of labor questions in the coal mining industry, whether by joint agreement between operators and mine workers or by agreements severally made with the United States Fuel Administrator, shall embody wherever applicable and substantially, the principles, provisions and practices laid down in the Maryland and Upper Potomac Settlement of May 6, 1918, and recognizes the authority of the International Union of Mine Workers in the organized fields and their jurisdiction over controversies arising in said fields. More specifically, the United States Fuel Administrator has insisted and will continue to insist in all such settlements—

a. That employers will be required to relinquish the right to discharge employees because of affiliation with labor unions.

b. That employers will be required to recognize the right of their employees to organize by peaceful methods that do not interrupt production.

c. That the so-called automatic penalty clause now in force being regarded by mine workers as a cardinal principle of collective bargaining during the continuance of the war, will be included in all agreements as a condition precedent to the allowance of increased price permitted to operators.

d. That where the union shop now exists the same shall continue, and where union and non-union men work together the continuance of such condition shall not be deemed a grievance."

Owing to the large demand for mine scales, The Standard Scales & Supply Company, of Pittsburgh, Pa., has increased its facilities in the mine scale department, and is now prepared to turn out fifty to seventy-five mine scales per week. This company states that there has been an unusually large demand for scales in the last few months, especially from the West Virginia district.

GAS EXPERIMENTS TRANSFERRED TO THE WAR DEPARTMENT

The experimentation with gases for use in warfare, which has been conducted by the Bureau of Mines has been transferred to the War Department by the following executive order:

"It is hereby ordered that the Experiment Station at American University, Washington, D. C., which station has been established under the supervision of the Bureau of Mines, Interior Department, for the purpose of making gas investigation for the Army, under authority of appropriations made for the Ordnance and Medical Departments of the Army, together with the personnel thereof, be, and the same is hereby, placed under the control of the War Department for operation under the Director of Gas Service of the Army."

Prior to the issuance of the order the Secretary of War wrote the President as follows:

"In connection with the proposed transfer of the chemical section at American University from the Bureau of Mines to the newly constituted and consolidated Gas Service of the War Department, which you are considering, I am specially concerned to have you know how much the War Department appreciates the splendid services which have been rendered to the country and to the Army by the Department of the Interior, and especially by the Bureau of Mines under the direction of Dr. Manning. In the early days of preparation and organization, Dr. Manning's contact with scientific men throughout the country was indispensably valuable. He was able to summon from the universities and the technical laboratories of the country men of the highest quality and to inspire them with enthusiastic zeal in attacking new and difficult problems which had to be solved with the utmost speed. I do not see how the work could have been better done than he did it, and the present suggestion that the section now pass under the direction and control of the War Department grows out of the fact that the whole subject of gas warfare has assumed a fresh pressure and intensity, and the director of it must have the widest control so as to be able to use the resources at his command in the most effective way possible. The proposal does not involve the disruption of the fine groups of scientific men Dr. Manning has brought together, but merely their transfer to General Sibert's direction."

Van H. Manning, the director of the Bureau of Mines, received the following letter from the President:

"I have had before me for some days the question presented by the Secretary of War involving the transfer of the chemical section established by you at the American University from the Bureau of Mines to the newly organized Division of Gas Warfare in which the War Department is now concentrating all the various facilities for offensive and defensive gas operations. I am satisfied that a more efficient organization can be effected by having these various activities under one direction and control, and my hesitation about acting in the matter has grown only out of a reluctance to take away from the Bureau of Mines a piece of work which thus far it has so effectively performed. The Secretary of War has assured me of his own recognition of the splendid work you have been able to do, and I am taking the liberty of enclosing a letter which I have received from him, in order that you may see how fully the War Department recognizes the value of the services.

"I am today signing the order directing the transfer. I want, however, to express to you my own appreciation of the fine and helpful piece of work which you have done, and to say that this sort of team work by the bureaus outside of the direct war-making agency is one of the cheering and gratifying evidences of the way our official forces are inspired by the presence of a great national task."

Conference With Smokeless Operators

A conference was held July 25 between representatives of the U. S. Fuel Administration and the smokeless coal operators of West Virginia. It was held for the purpose of adjusting the standard of prices of the product in these fields, for coal consigned to Hampton Roads, and for the consideration of other matters relative to brokers' commissions, production, etc.

No definite conclusion was reached at the present conference as to price adjustments, the operators from the Pocahontas field proposing to submit to the Administration at an early date a complete new set of cost sheets, which they say will more nearly represent the mining costs in their field.

Under the present regulations of the Fuel Administration nine different basic prices are fixed for coal originating in the Pocahontas, New River and Tug River fields. Covering different grades and different allowances, commissions, etc., there are forty-eight different prices applying to these fields. The Administration has proposed a schedule of average prices for the purpose of simplifying the accounting to the different fields and different operators. The Pocahontas operators object to the enforcement of any new plan until new cost sheets for their field shall have been prepared and submitted.

COAL PRODUCTION FOR WEEK ENDED JULY 27 WAS 12,802,000 TONS

The ouput of bituminous coal in the United States declined approximately 1 per cent during the week of July 27, according to reports received by the United States Fuel Administration from the United States Geological Survey. The output for the coal year to date is about 15,000,000 net tons short of the country's requirements. The production (including lignite and coal made into coke) for the week is estimated at 12,802,000 net tons, a decrease compared with the week preceding of 121,000 net tons, but an increase over the corresponding week of 1917 of 1,471,000 net tons, or 13 per cent.

The average daily production is estimated at 2,134,000 net tons as against 2,154,000 net tons during the week of July 20 and as compared with 1,889,000 tons during the week of July 27, 1917.

The output of the week under review is 9 per cent behind the average weekly output required during the balance of the summer months to make up the deficit to date. The difference between the summer requirements and that specified for the balance of the coal year is occasioned by the necessity to ship practically all lake coal during the summer months and 50 per cent more tidewater coal to New England during the summer than in the winter.

Production to date is approximately 15,000,000 net tons behind the schedule, and in order to meet all requirements as outlined by the U. S. Fuel Administration it will be necessary that the output of coal during the last of the summer months, August and September, shall exceed 14,000,000 net tons per week, 714,000 net tons, or 5.5 per cent in excess of the record week to date.

The average daily requirements have been ascertained by the U. S. Fuel Administration to be as follows: For the summer months, April 1 to September 30, 2,100,000 net tons; for the winter months, October 1 to March 31, 1,970,000 net tons. For the entire coal year, April 1, 1918, to March 31, 1919, there must be a daily average of 2,035,000 net tons.

Anthracite shipments increased slightly during the week, the total movement amounting to 40,942 carloads as against 40,664 carloads during the previous week.

CONDITIONS DURING WEEK OF JULY 20

During the week of July 20 the bituminous mines produced 85 per cent of the present full time output, the losses to production being distributed as follows: Car shortage, 5.1 per cent; labor shortage, including strikes, 4.4 per cent; mine disability, 4.2 per cent; no market, 0.1 per cent; all other causes, 1.2 per cent.

Improved working conditions were reported by the operators in northern and central Ohio, central Pennsylvania, New River and Winding Gulf and in the Western and Pacific Coast States. The improvements were attributed to better transportation conditions. More available labor was reported in the New River district and less mine disability in the Ohio district and better market conditions in the Western States.

The material decrease of production occurred in Illinois, southern Ohio, Westmoreland and Somerset counties, in Pennsylvania, the high volatile district of southern West Virginia, Fairmont, all Kentucky fields and southwest Virginia. In all districts except Kentucky the causes of increased losses were attributed to car and labor shortage and mine disability, whereas in the Kentucky fields the shortage of coal cars was the limiting factor.

Operators in New River and Winding Gulf, Pocahontas and Western and Pacific Coast States reported 100 per cent car supply during the week of July 20.

NO LIMITATION PLACED ON SALE OF OIL OR GASOLINE

Attention of the War Industries Board and of the United States Fuel Administration has been called to the wide prevalence throughout the United States of a mistaken impression that some order or recommendation has been issued from Washington with respect to the sale of oil and gasoline. In some places, local automobile dealers' associations have even issued circulars laying down the rule that dealers in oil and gasoline must make no sale of these products on Sundays and holidays or after 6 p. m. on other days, and stating "it is now an order from Washington."

No such order or recommendation has been issued by any governmental authority or with any governmental approval. The Fuel Administration has urged that wasteful practices in the use of oil and gasoline shall be stopped and all reasonable and proper measures of conservation shall be observed. No limitations, however, have been placed upon the sale of these products.

It is not intended to interfere in any way with the activities of automobile dealers' associations or others who, after consideration of the local conditions, may seek to bring about some limitation upon the hours during which oil and gasoline shall be sold to the public; but it is desired that it be clearly understood that no orders or recommendations have been issued by any governmental authority upon this subject.

RESTRICTIONS ON IMPORTATION OF MEXICAN LABOR QUALIFIED

The occupations in which Mexican laborers may engage after being admitted to the United States under the special provisions temporarily modifying the head tax, literacy test and contract labor provision, have been extended by supplemental order of Secretary of Labor Wilson.

Under the departmental order of June 12 the immigration restrictions for Mexican labor were lifted only for Mexicans coming to this country to engage in agricultural pursuits, railroad maintenance of way and lignite coal mining.

The new order, now in effect, adds to this list mining of all kinds and common labor work in connection with construction being done by or for the Government in Texas, New Mexico, Arizona and southern California, all included in the jurisdiction of Immigration District No. 23.

In addition the provision that Mexican laborers coming into the country under the war emergency provisions of the previous order must have a small portion of their wages deducted to be returned when they leave the United States has been discontinued.

Commissioner General of Immigration Caminetti is in general charge of the admission of Mexican laborers.

To facilitate the admission of Mexican laborers they will be permitted to enter the United States at all ports of entry along the Gulf and Atlantic Coast as far north as Charleston, S. C., in addition to the entry ports along the Mexican border.

The immigration office forces at towns most used by the Mexicans are being increased. Specially trained examiners of the United States Employment Service are assisting immigration inspectors in examining applicants at these points.

Encouraging reports come from the border States as to the effect the influx of Mexican labor has had already in alleviating local labor shortage. The Employment Service office at Yuma, Arizona, reports that: "The demand and supply for farm hands is about balanced. Any shortage of farm hands heretofore existing has been relieved to a large extent by the operation of Departmental Order No. 54261-202 (admission of Mexican labor)."

Other Federal employment offices along the border report numbers of Mexicans entering under the new provisions. Many of the immigrants are already at work cutting cotton in the Southwestern States.

A. G. Mackenzie, secretary of the Utah Chapter of the American Mining Congress, is in Washington to attend the hearing of the copper producers and the War Industries Board.

ALL RECORDS FOR WEEKLY COAL PRODUCTION EXCEEDED

Weekly coal production records found a new million mark to conjure with during the week ended July 13. According to the report by the Geological Survey the bituminous output (including lignite and coal made into coke) is estimated at 13,243,000 net tons.

The average production per working day is estimated at 2,207,000 net tons as against 2,051,000 net tons during the week of July 6, or an increase of 7.6 per cent, and as compared with the average production per working day of 1,961,000 net tons during the corresponding week of 1917.

The output during the week ended July 13 of 13,243,000 net tons is approximately 1,031,000 net tons, or 8 per cent above the average weekly requirements of 12,211,500 tons estimated by the U. S. Fuel Administration. However, the average weekly production for the coal year to date is estimated at 11,568,000 net tons, or 5.3 per cent behind the weekly requirements. In order to make up the deficit for th ecoal year from April 1 to date of 643,000 net tons per week, or 9,651,000 net tons, it will be necessary to have approximately ten more weeks of production equivalent to that of last week, or a production of 12,472,000 net tons during each of the thirty-seven remaining weeks in the coal year ending March 31, 1919. This figure has only twice been attained—the week of June 15 and the week here reported.

With these facts in view the efforts of the Fuel Administration, operators and miners to increase production must be supplemented by the elimination of every wasteful or unnecessary use of coal.

Reports from the carriers show increased shipments for the week of July 13, ranging from 26 to 36 per cent.

LIGHTLESS NIGHT ORDER AGAIN PUT IN EFFECT

Under a new order the use of light generated or produced by the use or consumption of coal, gas, oil or other fuel for illuminating or displaying advertisements, announcements or signs, or for the external ornamentation of any building, must be discontinued entirely on Monday, Tuesday, Wednesday and Thursday of each week within New England and the states of New York, Pennsylvania, New Jersey, Delaware, Maryland and the District of Columbia, and will be entirely discontinued on Monday and Tuesday of each week in all the remainder of the United States. The order excepts bona fide roof gardens and outdoor restaurants and outdoor moving picture theaters.

Street illumination in all cities will be restricted to the hours between sunset and sunrise, and the amount of public lighting in any city will be reduced to that necessary for safety.

HAYES URGES ANTHRACITE OPERATORS AND MEN TO SPEED UP

Frank J. Hayes, president of the United Mine Workers, has completed a tour of the anthracite mining field where he has been speaking to the mine operators and mine workers on the imperative need of speeding up production. His plea has been, particularly, that all mine workers shall, in the present crisis, work their full eight hours a day and persist in it through the six days of every week.

Thus, he has urged, in spite of the reduction of the mine workers' ranks caused by the draft and by voluntary enlistment, production could be brought to a point that would satisfy even the vastly increased war demands of the Government; would keep all the industries running full blast and would insure the domestic consumer against discomfort.

At a big meeting near Lansford, Pa., Mr. Hayes supplemented his own personal appeal by reading to the mine workers a letter from James B. Neale, Director of Production of the U. S. Fuel Administration, in which Mr. Neale said:

"I shall be glad if you will convey to the anthracite mine workers my greetings and make very clear to them the heavy responsibility which rests upon their shoulders in this hour of the Nation's need. Perhaps no one who is not in daily touch with the situation in the Fuel Administration in Washington, into which there is constantly coming information as to the needs for coal from all over the land, can fully realize the seriousness of the coal shortage and what a handicap it is to our success in the war. I am confident that I need only to state the fact that the shortage of coal is endangering the carrying out of our new war program and that the mine workers will then remove the danger.

"The task set for them is hard because of the inroads made in their ranks by the draft, voluntary enlistment and munition plants but there are still enough men and boys left in and about the mines to produce sufficient coal to meet the country's needs. To do this, however, will require, from each one, eight hours of work each day and the determination to produce a markedly increased tonnage. In this way only can the dangers and hardships which our soldiers in France must bear, be reduced to the minimum and many thousands of homes be kept warm during the coming winter.

"The mine workers above all others during the past years have proven themselves loyal to their comrades. There is no record of a mine disaster, where the lives of their fellows were endangered, that there were not more volunteers for the rescue than could be used. And so I am sure they will come to the rescue now and will give willingly of their time and strength, so that General Pershing's boys may be fully equipped to put up a powerful and victorious fight against the Kaiser and his armies which are threatening our freedom and so that there may be no suffering from cold this winter.

"Since Mr. Garfield, United States Fuel Administrator, wrote you under date of June 12, pointing out the need of eight hours of work each day by each mine worker and a large increase in tonnage, there has been some improvement, but the tonnage is still far short of meeting the urgent demands being made by those in charge of the war program and by the domestic users. More than on any other group, the eyes of American are centered today on the mine workers. Great results are expected of them and I am sure they will be given gladly in the cause of humanity."

New High Records

Still is the news of the progress of the American troops at the front backed up by news of increasing progress on the part of the industrial soldiers of the republic in the coal mines. Reports to the United States Fuel Administration indicate that the mine workers are bending every energy to the task of creating a high tide of production.

District Representative E. A. Holmes of Birmingham, Ala., reports that for the week ending July 27 the entire state of Alabama shows a production of 433,738 net tons, an increase of 18,175 net tons over any production week in the history of the state.

For the same period C. E. Lenhart, District Representative of Uniontown, Pa., reports that the Connellsville region has shown an increased production of 2,600 net tons over any previous record. E. J. Howe, District Representative at Bluefield, Va., for the Tug River and Pocahontas regions reports an increase of 7,600 net tons over the previous high record.

Production Committee Appointed

James B. Neale, Director of Production, United States Fuel Administration has appointed a Production Committee to work with him in the Fuel Administration Building and aid him in the intensive campaign for increased production of coal. The members of the new committee are G. C. Foedisch of Philadelphia; Alan C. Dodson of Bethlehem, Pa., and Julian B. Huff of Greensburg, Pa.

WAR LABOR BOARD FINDS AGAINST MINIMUM WAGE

The National War Labor Board has decided against establishing a minimum wage to be applied generally throughout industry. The question of the determination and application of a fair living wage is to be decided in each case on the basis of the particular facts ascertained. At the same time, however, the board adopted a resolution, written by former President William H. Taft, and submitted jointly by Mr. Taft and Frank P. Walsh, the joint chairman, in which the attention of capital and labor is invited to the wisdom of composing their differences upon the basis of the principles and policies of the board as approved and promulgated by the President in his Proclamation of April 8, 1918.

In this resolution the War Labor Board adopts an attitude firmly opposed both to unjust profits on the part of capital and unreasonable demands on the part of labor, stating that capital should have only such reasonable returns as will assure its use for the world's and the nation's cause; and that the physical well being of labor and its physical and mental effectiveness, in a comfort, reasonable in view of the exigencies of the war, should likewise be assured.

In so many words, the board declares the war to be an interregnum in which the wheels of industry should turn only in the common cause and for common ends, and neither for unjust profits on the part of capital or unfairly inflated wages on the part of labor, stressing maximum production as the paramount necessity and unselfish cooperation as the preliminary essentials to this accomplishment.

The adoption of the resolution marks the end of a lengthy discussion of the question of declaring and establishing a fixed amount as the minimum to be paid any workman in the United States.

It reaffirms, however, the principle that the worker is entitled to a wage sufficient to sustain himself and his family in health and reasonable comfort and restates the purpose of the board to apply the principle in each of the cases to come before it for decision.

Following is the resolution as passed unanimously by the board:

Resolved: That the National War Labor Board deems it an appropriate time to invite the attention of employers and workers alike to the wisdom of composing their differences in accord with the principles governing the National War Labor Board, which were approved and promulgated by the President in his proclamation of April 8, 1918.

That this war is not only a war of arms, but also a war of workshops; a competition in the quantitative production and distribution of munitions and war supplies; a contest in industrial resourcefulness and energy.

That the period of the war is not a normal period of industrial expansion from which the employer should expect unusual profits or the employes abnormal wages; that it is an interregnum in which industry is pursued only for common cause and common ends.

That capital should only have such reasonable returns as will assure its use for the world's and nation's cause, while the physical well being of labor and its physical and mental effectiveness in a comfort reasonable in view of the exigencies of the war, should likewise be assured.

That this board should be careful in its conclusions not to make orders in this interregnum, based on approved views of progress in normal times, which, under war conditions, might seriously impair the present economic structure of our country.

That the declaration of our principles as to the living wage and an established minimum should be construed in the light of these considerations.

That for the present the board or its sections should consider and decide each case involving these principles on its particular facts and reserve any general rule of decision until its judgments have been sufficiently numerous, and their operation sufficiently clear, to make generalization safe.

FURTHER RESTRICTIONS ON SMOKELESS COAL SHIPMENTS

An order has been issued by the U. S. Fuel Administration prohibiting any person owning or operating a dock on Lake Michigan or Lake Superior from selling, shipping, delivering or distributing smokeless coal received at any such dock from the New River, Pocahontas, Tug River or other field producing low volatile smokeless coal for any purpose other than making illuminating gas, by-product coke or coal briquettes, or for such other special purposes as may be designated by the Fuel Administration, by special permits.

The prohibition contained in the order also includes any such coal carried over from stocks of last year. Also it applies to all shipments of smokeless coal which are permitted under the Zone orders as well as to all out of zone shipments under zone permits.

To sell or deliver smokeless coal except as specified under the Order of today special permits must be obtained from the District Representative of the U. S. Fuel Administration in charge of docks on Lake Michigan and Lake Superior.

RETIRED MINERS HELP TO BREAK PRODUCTION RECORDS

Enthusiasm for increased production in the coal fields is growing rapidly and in practically every district the mine workers, who, as President Wilson says, are "enlisted in the great service army," are striving to break their own production records week by week.

A striking evidence that the mine worker has become impressed with the vital importance of the work entrusted to him comes from the mines of the Mercer Iron and Coal Company at Stoneboro, Pa.

These mines are the oldest in that section of the country and have for years produced a large quantity of high-grade coal. Their production is in the neighborhood of 500,000 tons a year.

There were in that section about one hundred and fifty miners who had been in the service of the company years ago, and, on account of age, had retired from active mine work. Realizing the country's need of coal at this time they came forward voluntarily and agreed once more to take up the pick and shovel. A large number of these men had been able to set aside sufficient to maintain them in comfort during their declining years, but, feeling they were not fit for military service, chose this way of emphasizing their loyalty to the country.

These men were given employment in a new opening on the mine, an opening not yet connected by railroad, but while waiting for a siding to be completed they have already mined over 4,000 tons of coal which is piled up waiting to be hauled away.

SOUTHWEST VIRGINIA MAKES FINE SHOWING

G. D. Kilgore, district representative at Norton, Va., has sent a telegram to the United States Fuel Administration saying:

"Southwest Virginia field is over the top with a production of 193,626 tons, week ended July 13. This is 94 per cent full time capacity. Total loss, 12,656 tons, of which 3,275 tons was due to car shortage; 9,145 tons due to labor shortage and 236 tons due to mine disability. This is greatest weekly production in history of the field. Labor efficiency greatly increased and we are striving to reach 200,000 tons weekly. We have started honor roll for operations producing from 90 to 100 per cent."

A letter of congratulation was sent to the district representative by James B. Neale, director of production, in which he said:

"I congratulate you and the operators and mine workers on their fine display of patriotism. The increased tonnage will help a lot in winning the war, and all parties in interest may feel they are truly performing just as patriotic a service as though they were fighting in France. I am glad to know that a splendid spirit of patriotic cooperation exists, and under such a condition nothing can stop the southwestern Virginia field from producing at least 200,000 tons per week until the war is over."

Pennsylvania Miners Set High Records

So fully are the mine workers in most of the producing districts realizing the vital importance of speeding up the production of coal that they are beginning in various regions to set high production marks for themselves and are then bending every energy to beat their own records.

On July 18 F. W. Guthrie, president of the United States Coal Corporation, of Pittsburgh, sent a letter to the superintendent of all the mines under his control, in which he said:

"Let us set the top for July as 200,000 tons and all make up our minds to go 'over the top' for the month to the greatest extent possible. The Germans have started a big drive on the other side and our brave boys seem to be holding them in good shape. Let us start a drive of our own here at home to support our boys with the proportion of coal needed. I know that you and your men will be glad to do your share in this work."

This was July 18. On the 31st of the month Mr. Guthrie was able to send the following telegram to the United States Fuel Administration:

"Went over the top yesterday with production 201,691 tons. Hope to make 210,000 tons, including today."

Thus all records for the production of these mines was broken by the patriotic effort of the mine workers.

James B. Neale, Director of Production, on receipt of this news wired:

"I shall be glad if you will express to your superintendents and to all of your mine workers my appreciation of their true patriotism and say to them that the United States Fuel Administration is confident that before long a 'ten thousand ton day' will be regarded as below the average."

Half Cent Advance Permitted

The National Petroleum War Service Committee has been advised by the United States Fuel Administration that it does object to an advance of one-half cent a gallon in the wholesale tank wagon market price of gasoline, naphtha and refined oil throughout the entire United States. The reason for this advance is the recent increase in railroad rates throughout the United States.

In no instance shall the increase in the wholesale prices of these products be permitted to cause an advance in the price to the consumer of more than one-half cent per gallon.

ALEXANDER V. DYE
A widely known member of the Phelps-Dodge staff.

EXPECT TO SAVE 3,000,000 TONS OF COAL AT INDUSTRIAL FURNACES

The complete organization of the Industrial Furnace Section, of the Fuel Administration to handle fuel conservation in all furnaces with the exception of those operated for the production of power, heat and light has been effected. This includes those plants using fuel for direct heat, such as the clay products industries.

This section is in charge of an experienced engineer who has under his immediate supervision thirteen districts comprised of thirty-one states, covering the territory in which industrial furnaces are used. Each district has a local head who has in his organization an advisory board and a corps of inspecting engineers.

The newly appointed district chiefs met at the Fuel Administration Building for a conference with A. F. Greaves-Walker, the chief of the section. The district chief made report based on a preliminary survey of each district. Their conservative estimates of probable annual savings was 3,000,000 tons of coal.

A standard questionnaire is being furnished each plant owner in advance of the inspection, which he will fill out and hold for the inspector. The rating of each plant will be based upon the efficiency with which fuel is used. All wasteful burning processes will be taken into account; but an opportunity for correcting wasteful conditions will be given before inspection. Recommendations will accompany each questionnaire, several items of which will apply to each and every plant, and if followed will improve conditions materially. The inspecting engineer will be in a position to make further recommendations to each owner after inspecting his plant.

The clay products, lime, cement and glass industries will be inspected first.

It is considered important that all existing fuel conservation committees, committees of chambers of commerce and national defense, manufacturers' associations and other bodies engaged in conservation work within the territory of any district shall be continued in full force and that the cooperation of such organizations shall be obtained.

By appealing to the patriotism of the furnace owner, at the same time presenting tangible facts which show him a way of saving money for himself and fuel for the nation's use in the prosecution of the war, little trouble is expected in bringing about conservation of fuel through the proper regulation and operation of all industrial furnaces.

HENRY S. WILLIAMS, NOTED GEOLOGIST, DIES IN CUBA

Henry Shaler Williams of Ithaca, N. Y., died in Havana, July 31, of pleurisy. He was seventy-one years old. Professor Williams was well known as a geologist. His research work in Cuba resulted in the development of oil fields in the island.

Professor Williams was one of the best known geologists and paleontologists in the country, having been placed in charge of many important investigations and having written much on geology. From 1832 to 1912 he was Professor of Geology at Yale University, and since 1912 had been Emeritus Professor of Geology at Cornell University. For some time he was in charge of the Devonian Laboratory of the United States Geological Survey, and was associate editor of the American Journal of Science and Journal of Geology. He represented the United States in the International Congress of Geology.

Professor Williams was born in Ithaca, N. Y., in 1847, and was graduated from Yale in 1868. He became assistant in paleontology in his alma mater, but after two years left to become Professor of Natural Science in Kentucky University. From there he went to Cornell, where he remained until his appointment at Yale.

All of Professor Williams's writings were of an abstruse nature, so that he was best known among scholars. Among his works were: "A Geological Biology," "Correlation Papers, Devonian and Carboniferous," "On the Theory of Organic Variation"; also many papers on Devonian geology and paleontology.

Year Limit on Contracts Revoked

By an order of the U. S. Fuel Administration operators, producers and jobbers of coal and coke under certain conditions may make contracts covering a longer period than one year.

The order amends the former order, dated December 24, 1917, prohibiting the making of contracts for a longer period than a year by providing that the United States Fuel Administrator may in his discretion upon application and submission to him of satisfactory evidence specially approve of the making of any particular contract covering a period longer than one year, or without limitation as to date of termination. Any such contract so specially approved shall, however be subject to all orders, rules and regulations of the United States Fuel Administrator then or hereafter at any time in force.

MAXIMUM CHARCOAL PRICE FIXED BY FUEL ADMINISTRATION

To provide for the better distribution of charcoal, the U. S. Fuel Administration has promulgated regulations covering the distribution of car load lots, together with the maximum prices which may be charged by the producer therefor.

Under the regulations, the maximum prices of charcoal in car lots shall be: lump in bulk, 20 cents per bushel; lump in bags, 22 cents per bushel; screenings in bags, 20 cents per bushel. All the maximum prices apply to car lots sold to consumers or to dealers for wagon delivery. Any commission paid to selling agencies or margins allowed to jobbers, shall be paid by the vendors, and shall not be added to the established prices. Where wagon deliveries are made by the producer to the purchaser, a reasonable charge for such handling may be added subject to the approval of the Federal Fuel Administrator for the state in which such deliveries are made.

Where charcoal is shipped in bags the actual cost of the bags may be added to the prices given. The purchaser may return bags suitable for refilling to the point of shipment within sixty days after date of shipment, in which case the price charged for the bags shall be refunded.

New Coke Prices

By orders of the United States Fuel Administration, price regulations have been established on crushed and screened coke and breeze produced in by-product ovens, on crushed and screened coke and breeze made in beehive ovens, on beehive coke in the state of Utah, and on gas coke.

As anthracite coal is not obtainable in certain districts where gas coke is produced, and as there are no published railroad freight rates on anthracite coal to such districts, the base price for such coke at the plant, plus the lowest published coke freight rate to such point, shall be: Run of retorts, $5.50; run of retorts, screened above ¾-inch size, $6; screened and sized about ¾-inch size, $6.50; screened and sized between ½ and ¾-inch, $4.50.

The prices of gas coke, at the plant in districts where authracite coal is obtainable, sold to dealers for distribution in less than car lots or delivered direct to consumers for household purposes, are fixed as follows: Screened and sized above ¾-inch, the same price established for stove anthracite in the same locality; run of retorts, screened about ¾-inch, 25 cents less than the price of stove anthracite; run of retorts, not screened, 75 cents less than the price of stove anthracite. Coke sold for purposes other than those just mentioned will take the same price as gas coke in localities where anthracite is not obtainable.

The maximum price for breeze shall be one-half the price established for run of retorts coke unscreened made in gas retorts where such breeze is produced.

The order relating to coke made in beehive ovens provides that the price per ton, f. o. b. the ovens, for crushed coke over ¾-inch size, shall be the maximum price for 72-hour selected foundry coke, plus 30 cents. All prepared sizes of clean dry-screened coke under ¾-inch size, shall be $1 less than the price for blast furnace coke made at beehive ovens where such coke is produced. The maximum price for breeze shall be one-half the price established for blast-furnace coke made in beehive ovens where such breeze is produced.

The maximum price for coke per ton, f. o. b. cars at ovens, for crushed coke over ¾-inch size, produced at any by-product oven plant, shall be the maximum price for run of ovens coke plus 50 cents. This shall include all prepared sizes of clean hard coke over ¾-inch size, whether crushed or screened mechanically or screened by hand. The maximum price per ton, f. o. b. cars at ovens, for all prepared sizes of clean dry-screened coke under ¾-inch size shall be $1 per ton less than the price for run of ovens made in by-product ovens where such coke is produced. The price per ton for breeze shall be one-half the price of run of oven coke made in by-product ovens where such breeze is produced.

Prices for coke produced in the state of Utah were established as follows: Eight and a half dollars per ton for smelting or furnace coke, $9.50 per ton for 72-hour selected foundry coke.

John T. Burns, western secretary of the American Mining Congress, is now at the Washington office, where he will be during the next three months. Secretary Callbreath left early in August for an extended western trip.

PENDING LEGISLATION INTERESTING TO PRODUCERS

The following bills of interest to the mining industry have been introduced in Congress since the July issue of the JOURNAL:

S. 4789—King: To establish a branch of the Interior Department in the Western States and to transfer to such branch certain bureaus and offices of the Interior Department. Branch to be established in some public lands state west of the Mississippi River and location to be designated by the President under the direction of the Secretary of the Interior. The bill provides for the transfer from the District of Columbia to the proposed Western office the offices of the Commissioner of Public Lands, the Geological Survey, the Bureau of Mines, the Reclamation Service, and the Commissioner of Indian Affairs, together with all such equipment as may be necessary to the administration of such bureaus. Bill carries with it certain provisions affecting the Forestry Service. An appropriation of $1,000,000 is provided for the erection of buildings, etc.

S. Res. 274—Shields: Directing Secretary of Agriculture to furnish the Senate with all available information concerning phosphate rock found in the United States, location of deposits, quantity mined and exported, cost of production, amount now used in commercial fertilizers and sugegstions for proper legisla-fertilizers and suggestions for proper legislation for the further development of the phosphate industry.

S. 4795—McKellar: To amend existing law encouraging production, conservation and distribution of food and fuel. Making it unlawful for any agent of the Government whose duty it is to solicit or execute contracts to solicit, induce or execute contracts with any firm, corporation or business association with which he is associated or of which he is a stockholder or officer.

S. 4823—Lenroot: Governing child labor in mines or quarries and other enterprises. Fixing an excise tax of 5 per cent upon the accrued profits of the year of any mine in which children under the age of 16 have been employed during the year. Fixing authority in the Commissioner of Internal Revenue and Secretary of Labor to administer the act. Authorizing inspection of properties for enforcement of the law. Providing for reports from employers and fixing penalties for violations.

S. 3220—H. R. 12032: Authorizing the Secretary of the Interior to make investigations through the Bureau of Mines of lignite coals and peat, and to determine their practicability as fuel and in producing commercial products.

H. R. 12705 Green: Providing for an excise tax of 5 per cent upon the price of all production from mines, mills, factories, etc., employing children between the ages of 14 and 16 more than eight hours in any day or more than six days in one week.

H. J. Res. 315—Watson: Proposing the following amendment to the Constitution of the United States: "The Congress shall have power by appropriate legislation to regulate the wages of laborers and mechanics employed in any occupation or industry of the United States; to regulate the amount of fees to be charged and paid for professional services; to regulate the hours of labor in industries and occupations in the United States, the Territories, and insular possessions thereof and the District of Columbia; and to regulate the prices of all commodities produced in or offered for sale or consumption within the United States, the Territories and the Insular Possessions thereof and the District of Columbia.

WAR INDUSTRIES BOARD TAKES CONTROL OF SULPHUR SUPPLY

The War Industries Board has passed a resolution, approved by the President, taking over control of the production and distribution of sulphur materials. This was made necessary by the increased demand from the Government for sulphur in the manufacture of explosives and for other purposes and by the increasing burdens on the rail and water systems in the transportation of materials.

William G. Woolfolk, chief of the section in charge of sulphur and pyrites, has been named to act for the War Industries Board in controlling the production and distribution of sulphur materials, availing himself of such voluntary assistance as he may see fit of individuals or committees representing the producers and users of such materials.

MAGNESITE IMPORTS NOW ALLOWED ON BACKHAUL

The War Trade Board, by a new ruling, has amended the restriction upon the importation of magnesite to permit its importation, under the backhaul proviso, permitting the importation of magnesite when shipped as return cargo from Europe and the Mediterranean Coast of Africa, and when shipped from convenient ports where loading can be done without delay.

Index to Advertisers

(Continued from page 5)

Egyptian Timber Company ... 31
Elmore, G. H. ... 39
Equitable Powder Company, The ... 14
General Briquetting Company, The ... 39
General Electric Company ... 19
Goodall Brothers ... 36
Goodin, Reid & Company ... 16
Goodman Rubber Co., The B. F. ... 23
Goodrich Mfg. Co. ... 10
Granville Supply Company ... 35
Hazard Mfg. Company ... 21
Hercules Powder Company ... 15
Hockensmith Wheel & Mine Car Company ... 25
Hoffman Brothers ... 36
Holmes & Brothers, Inc., Robert ... 8
Holloway Co., Willis E. ... 36
Hunt & Company, Robert ... 33
Illinois Zinc Company ... 33
Indiana Laboratories Co., Inc., The ... 36
International High Speed Steel Co. ... 4
Ironton Engine Co., The ... 7
Irvington Smelting & Refining Works 33
Jeffrey Mfg. Company, The ... Cover
Laubenstein Mfg. Company ... 35
Ledux & Company, Inc. ... 33
Leetonia Tool Company, The ... 35
Lehigh Coal & Navigation Company, The ... 48
Longyear Company, E. J. ... 33
Lunkenheimer Company, E. J. ... 35
Macomber & Whyte Rope Company ... 21
Machinery Warehouse & Sales Co. ... 39
Marioneaux, Stott & Beck ... 36
Medart Patent Pulley Company ... 27
Mining Congress Journal ... 20
Mononghahela Wood Preserving Company ... 39
Morse Chain Company ... Cover
Nicholson & Co., W. H. ... 36
Ohio Brass Company, The ... 27
Ohio Grease Company, The ... 31
Pacific Tank & Pipe Company ... 25
Pennsylvania Smelting Company ... 39
Phelps Dodge Corporation ... 33
Phillips Mine & Mill Supply Company ... 12
Pitkin, Lucius, Inc. ... 33
Pneumelectric Machine Co., The ... 8
Professional Cards ... 36
Prox Company, The Frank ... 29
Richards, J. W. ... 36
Roebling's Sons, John A ... 21
Standard Scale & Supply Company ... 12
Stephens Adamson Mfg. Company ... 22
Thorne, Neale & Company, Inc. ... 48
Tout & McCarthy ... 36
Union Electric Company ... 25
Vulcan Iron Works ... 18
Western Chemical Mfg. Company ... 36
West Virginia Rail Company, The ... 35
Weir Frog Company ... 27
Wilmot Engineering Company ... 35
Wood Equipment Company, The ... 10
Worthington Pump & Machinery Co. ... 18
Wyoming Shovel Works ... 3

Priority for Mine Supplies

The United States Fuel Administration announces the appointment of Roy A. Rainey of New York and David D. Bush of Chicago to the Production Bureau to take charge of priorities in mine supplies. They will work in conjunction with the War Industries Board to see that the production of coal is not hampered or lessened by reason of needed material or equipment.

The Dorr Company announces a change, effective August 1, in the address of its New York office to 101 Park Avenue, where much needed additional space has been secured to care for the continued expansion of its business.

The Bureau of Oil Conservation, Oil Division, U. S. Fuel Administration, is desirous of securing a combustion engineer for each of the following districts, who will act as an inspector, visiting all plants within his district using fuel oil and natural gas: Boston, Providence, New York City, Philadelphia, Pittsburgh, Buffalo, Detroit, Chicago, Minneapolis, Tulsa, New Orleans and San Francisco.

It is desirable to have these men act as volunteers where possible, but the Administration is prepared to pay a reasonable compensation for men who cannot afford to give their services to the Government. Only men who have had experience in fuel oil and natural gas combustion would be of value.

PERSONALS

Carroll Miller, formerly general manager of the Western United Gas and Electric Company, of Aurora, Ill., has resigned his position and has gone to Pitsburgh, Pa., where he will be permanently located.

O. F. Brinton, of Oklahoma, was in New York and Washington during the month.

T. L. Lewis, of West Virginia, was several days in the capital the latter part of July.

Temple Chapman stopped at the Washington office of the American Mining Congress, en route to his home in Missouri.

B. H. Dunshee has left Montana, where he has been connected with the Anaconda Copper Company for many years, and will hereafter reside in California.

Mr. A. Niedermeyer, for many years connected with the Worthington Pump and Machinery Corporation, most recently as works manager of the Snow-Holly Works of that corporation, at Buffalo, N. Y., resigned on May 31 to devote his entire time to enterprises of his own.

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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

ANNOUNCEMENT

Every effort of the mining industry is bent toward the accomplishment of the great task of civilization—the suppression of militarism and the perpetuation of democracy in the world.

All of the machinery of transportation and exchange having its initiation in mineral production is being worked to its utmost. This situation has led to the determination by the American Mining Congress not to add to these burdens by holding a convention during the present year. Notwithstanding the present strenuous conditions, an intense interest prevails concerning the business conditions in the after war period when the Government shall cease its present war expenditure of approximately fifteen billions of dollars annually; when ten million men shall turn from war and war preparations to normal industrial pursuits; when the present high prices shall seek normal levels and when the country must set itself at work to rehabilitate its production and transportation machinery and to earn the funds with which to pay the vast accumulation of debt contracted for war service.

Instead of a convention it has been decided to hold the annual meeting of directors and members either in Chicago, New York or Washington early in December. It is believed that by that time the war will be so well along that deliberate consideration can be given to the after war problems of the mining industry. War conditions have brought many changes. Shall these be continued or are we to go back to the good of the old system and to what extent shall we eliminate the bad and how shall it be done?

All these problems connect themselves closely with the wage problem and the price problem. Prices must come down, but how far can wages remain at high levels which all desire and the price of the necessities which the laborer consumes be reduced?

Can the railroads continue to pay high wages and yet give reasonably cheap transportation facilities to the public? Is there brains enough in the nation to solve these problems without a panic? If a panic is the only way, and such is the belief of many wise men, how will you adjust your industry to best stand the shock?

As there will be no convention to discuss these problems, the American Mining Congress proposes to prepare a compendium of discussion of this subject as it relates to the mining industry in a special reconstruction number of The Mining Congress Journal to be issued early in December. It proposes to make this discussion concise, yet complete, and to bring to it the best thought of the men who have given most attention to these problems. To defray the extra expense of the edition and to catalogue the business firms of foresight and public spirit, the friends of the movement will be asked to subscribe for space in which the personal story of their business appeal to the public may be told.

Surely there is brains enough in the country to prevent the suffering and want and disorganization which must follow a panic. Surely the effective intelligence of the country can steer the business craft through the inevitable rapids of after-war reorganization and prevent it from being foundered on rocks plainly in view.

The reconstruction number of THE MINING CONGRESS JOURNAL will undertake to marshall and concentrate the best public foresight and to so direct public effort that continuously employed production machinery may at all times provide liberal wages to all employees, fair profits to all operators, and to the consumers the cheapest supplies possible consistent with liberal wages and fair profits.

NEW DRAFT LAW AND THE MINES

The danger to industrial America through the working out of the new draft law has caused the Government to awaken to the necessity for very intelligent cooperation with employers, in order that disaster may be avoided and loss in production of raw materials minimized.

Especially is there recognition of the danger to the mining industry, and when officers of The American Mining Congress brought the matter directly to the attention of Provost Marshal General Crowder, prompt assurance was given that every effort would be made to prevent loss of man power in the mines. "Every man who can be spared to carry on war work must be used for the army," the General said, "but we are endeavoring to prevent anything happening to the industries upon which we depend for war materials or for the safety and comfort of our men." The attitude of Colonel Conkling, in charge of problems connected with the production of coal, was the same.

The Administration, through its civic departments, is cooperating closely with General Crowder in working out the necessary protective measures. The now thoroughly organized employment service, sub department of the Department of Labor, has been granted certain powers of control over unskilled labor, even to the extent of forcible allocation, if necessary, to war work. The Labor Policies Board, in charge of Felix Frankfurter as chairman, has materially strengthened its work through the organization of a "man-power committee," at the head of which is Charles Neave, well known as an attorney of high standing in New York, and who is working very closely with the War Department in establishing the machinery which not only administers the draft, but is being called upon to work out the man-power problems in industrial centers. Mr. Neave reiterated the statements of General Crowder and his assistants—that no weakening of man power would be allowed in mines, "though employers must give this matter immediate attention and assist us to understand their needs," he said. He then outlined the organization of the draft machinery and requested the cooperation of The American Mining Congress in getting the plans of his committee promptly before the mining operators.

A new element was brought into the situation through the organization of a "labor committee" in the Bureau of Mines, with J. E. Spurr, chairman of the board, in charge of War Minerals Investigations as chairman. All of the forces, though working separately and from different angles, will coordinate their information to insure the most satisfactory results. Long before the rules were promulgated and while the draft bill was still in debate, The American Mining Congress gave the detailed information to its members and affiliated bodies and began the work of organizing the operators along protective lines.

Incidental cases of injustice may be discovered where district boards may fail in giving consideration to the statements of employers, but THE MINING CONGRESS JOURNAL believes that these cases will be the exception and that Chairman Neave of the man-power committee will be able to invoke proper action on the part of the War Department. Already there have been reported to The American Mining Congress certain cases where serious results will follow the withdrawal of certain men, but these cases are in the hands of the proper officials for investigation.

The Mining Congress appealed to every operator *not* to handle his labor draft problems in a perfunctory manner, but to be able to place individual statements covering every "key" man in each mine or business department of mining companies directly in the hands of district boards. The request means a great deal of work for corporations employing hundreds and in some cases thousands of men, but before the draft machinery began work many of these corporations were listing the information desired. It is a case of man power for army and industry and the man power is as important for one as for the other. General Crowder intends to man the army, and if employers desire to retain the pivotal forces in their producing departments it is up to them to cooperate with proof of the necessity for retaining every important trained and efficient man and further—to furnish proof of his efficiency.

The Mining Congress Journal believes that a liberal measure of praise is due to the administrative officers who have endeavored to work out this most remarkable program by which every man will be made to do his bit. We also desire to add a word of praise for the excellent manner in which the Adjutant General has worked out a system of "furloughs" whereby errors, when recognized, can be rectified promptly. This newly established order of the War Department has already returned several thousands of ship builders and munitions workers to their labors—it being invoked first in this department of war energy. A few weeks ago it became effective in the coal mines and thousands of operatives have returned to the mines. In the first week of September the system was extended to metalliferous mines and Director Manning has been made certifying officer to pass upon individual furlough claims. Its working is simple but efficient. When it is found that a man, necessary to the strengthening of war production has, through inadvertence or even through his own expressed desire, been placed in the army, a careful investigation of the circumstances is made. The man is appealed to by the War Department to fulfill the part of a patriot and return to the shop, mine, shipyard or office whence he was taken. He is allowed to draw civilian pay and have civilian privileges, but he remains a soldier and wears his uniform and is in fact a member of the army reserve and recognized as such.

It is an expensive system, individual cases costing as much as one hundred and fifty dollars, but it is the one existing method by which interference with production may be prevented.

America does not intend to repeat the costly error by which England was obliged to return 25,000 of her skilled miners and laborers from the trenches to re-man her industries. The newly organized and coordinated machinery, although attempting a task of almost superhuman magnitude, will, no doubt, if proper cooperation is granted upon the part of employers, work satisfactorily except in the rare instances where abuses may be attempted.

MINING AND METALLURGICAL RESERVE

Regardless of the plans already announced for the protection of mining under the new draft law, The Mining Congress Journal takes the liberty of commenting upon a plan proposed by Director Manning and his associates of the Bureau of Mines, and insists that the plan should receive immediate and favorable consideration from the war administration.

While every effort will be made to prevent loss of man power in the mines, there will be some loss. It cannot be wholly prevented by the methods already devised. A number of technical men occupying positions of highest importance are liable to enlist or be drafted. They may be placed in obscure positions where their technical training will be of no particular value. The loss of technical men in the mining industry is a serious matter at any time, and much more serious at a time when every skilled brain should be employed in bringing production to maximum.

The problem cannot be solved merely by exempting men because, regardless of the expressed preferences of the Government, hundreds of these men will refuse exemption and will insist upon joining the fighting forces. The suggestion of the Bureau of Mines officials—a most excellent one from every standpoint—is that there be organized a Mining and Metallurgical Officers' Reserve Corps made up in part of volunteers and in part of qualified men now of draft age, and that they be directed to work where they will be most efficient. This will mean, in the majority of cases, their present employments.

With this Reserve Corps under control of the War Administration, the technical forces represented can be moved when and where necessary, the trained intellects utilized to maximum advantage to the industry and to the Government, and it is not beyond the realm of possibilities that such a body of men will be badly needed for the rehabilitation of Russian mines and to open to the world the vast mineral resources of Siberia.

The scheme as already placed before the Administration includes the appointment of a special representative of the mining industry on each district draft board with advisory power in selection of the "key men" of the industry, for the proposed reserve service. All men selected for the reserve were to be assigned to remain in civic occupations until called for special duty in the army.

The plan is a good one. It did not originate in the army and it was promptly rejected. But this war is not going to be won by allowing the military spirit to override common business sense, and THE MINING CONGRESS JOURNAL suggests that the splendid business men of the nation who have dropped their private affairs to assist in working out the enlarged military program give serious attention to the thought advanced by the men responsible for much of the progress now being made in the production of our war minerals.

ORGANIZATION IS SALVATION

An editorial quoted from the Daily Mining and Financial Record of Denver, puts squarely up to the nation a problem which must be worked out upon intelligent business lines. The startling facts concerning both white and yellow metals have been developed so recently that few, even of the financial writers in America, seem to have grasped the cold, hard reality of the situation.

The American Mining Congress has labored consistently to establish a belief on the part of mining operators in the necessity for a national bureau of mining economics. Such a bureau would have been in position to have warned the nation—both producer and lawmaker—long ago of the pending condition. Such a bureau is proposed by this organization and will some day assist the mining industry to maintain a profit-making level through an actual knowledge of facts necessary to intelligent investment of capital and energy.

The recent organization of The American Gold Conference through the combined effort of Gov. Emmet D. Boyle, of Nevada, and The American Mining Congress is the result of the realization forced upon producers that radical readjustment of mining conditions must come quickly to prevent undue and possibly disastrous decrease in available gold. The facts and argument given by the writer quoted below show that the timely warning sounded by THE MINING CONGRESS JOURNAL was based upon a *real* and not upon a theoretical condition:

> "The statement is often made that 'there is more gold and silver in the ground waiting to be mined in the future than has ever been mined from the beginning of time to date.' No mining man doubts this statement, but all of them recognize the fact that the ore that remains to be mined is of far lower grade than that which has been mined, and that if it is ever to be mined, it will have to be worth more per ounce than it ever has been yet.
>
> "It is time for the people of the West to face facts. The big gold and silver mines, capable of producing these metals in quantity at a low cost, are worked out. There are no great bonanza camps left from which to get cheap gold and silver. It costs more today to produce gold or silver than ever before, and unless it is made a more profitable business these low-grade leftover deposits will not be worked.
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> "In 1893 there were such camps as Aspen, Rico, Creede, Silverton, Ouray, Leadville and the camps of Clear Creek and Boulder counties, which contained numerous mines yielding ore that carried from 200 to 1,500 ounces of silver per ton, and a strike of an ore body running 400 to 500 ounces of silver per ton was not considered a startling matter and caused only passing comment.

"Today in these same camps fifty-ounce silver ore is considered high grade and the lucky finder of it is more envied and gets more notoriety in the local papers than an old-time miner got when he discovered a new mine carrying 1,000-ounce ore. A discovery of 500-ounce ore in any of the mines in these camps is a sensation. There is not a single mine in any of these camps producing 200-ounce ore in anything like the quantity that any one of the numerous and famous old producers turned out before 1893. *And there never will be.*

"But no one who knows mining will doubt doubt for a moment but that there is more silver and gold in the mines of these camps than has ever been taken out. It is there because it does not pay to mine it at the present price per ounce of these metals, and there it will remain until it does pay. A great deal of this ore will pay with gold at $30 per ounce and silver at $1.30 an ounce. With these prices for the gold and silver produced from now on, the West can produce the metal needed and mining be made one of our important industries again. Without them it will rapidly cease to exist.

"It is highly possible that there are in the West undiscovered camps as good as any that have been found heretofore, but we must admit the fact that efforts to locate them have been unsuccessful to date, and that even if another Aspen, Creede or Rico is found, the total amount of gold and silver they will produce will be but a drop in the bucket to what is so badly needed now. It will take a dozen camps like Creede, Aspen or Rico to furnish the silver needed. Ten Cripple Creeks would not supply us with more than $3,000,000,000 worth of gold, and this amount will not go far toward putting old gold reserve back to the point where it would represent 35 per cent of the world's bonded indebtedness. The chances of finding this number of new camps are nil. The chances of finding even one more Cripple Creek are extremely small, so that our future gold and silver supply must come from the low-grade leftover deposits, and silver and gold must be made worth more per ounce.

"Fifty dollars for gold and $2 an ounce for silver will not put a single ounce of these metals into the ground nor increase the quantity that nature has stored in the earth. A new crop of rich gold and silver mines, such as the West has known in the past, will never be opened up. Our future supplies of the metals must come from the extremely low-grade ore, now too poor to work, and possibly from a few scattering new camps to be found, if possible.

"The miner must have an increased price for these metals or go out of business. An increase of price in gold of $10 an ounce will barely cover the increased cost of labor and supplies which the miner buys. It is an increase of but 50 per cent, whereas in many camps it is a fact that the gold miner is faced by an increased cost of 100 per cent for labor and supplies.

"The miner is not alone concerned in this. Everybody directly or indirectly connected with the mining business will feel the effect, if the gold and silver mines are forced to close. Thousands of stockholders in mining companies, every business which furnishes supplies directly or indirectly to people interested in gold and silver mines, will be affected.

"Unless the supply of gold and silver is increased, our credit will rest on pure paper. The cost of living will advance faster than ever before and it will take a bushel of paper money to buy a bushel of wheat.

"The combined strength of every man in the West must be placed back of the various metal mining associations, institutes and The American Mining Congress, regardless of whether he is directly interested in the mining business or not."

THE COAL SITUATION

The coal question is largely a matter of figures. That is, Italy produces no coal and turned to England to get it. France produced, in normal times, less than she used. Then she lost part of her mines and turned to England to get the balance. Those countries which produced food for England needed coal to carry their food to tidewater and, naturally, turned to England to get it.

Then England, making the identical mistake that America is now duplicating with so much sagacity, drafted her coal miners into the army and began to lose coal production at the very moment when the call upon her was the greatest.

England, having no other place to go, has turned to America for coal. We must produce it or the world is going to run short.

It becomes, then, a simple matter of figures to tell what the coal situation really is. Those figures concern themselves with: How much does the world need? How much is America producing? What is the difference? That difference between supply and demand will tell the coal situation better than could be done in a volume.

We have not the complete coal budget of the world. Neither have we a dependable record of American supply because it is going up sharply one week and falling precipitately the next. However, we can come pretty close to it.

The American budget calls for about 2,400,000 tons a day of all kinds of coal—anthracite and bituminous combined. The production of bituminous has twice been up to 2,100,000 tons a day and the production of anthracite is pretty steadily at better than 300,000.000 tons a day. Therefore, on two occasions the daily production of coal has equaled the budget. Most of the time we have fallen short of the American budget alone. We have a sizable deficit of coal staring us in the face—unless it happens that the budget figures are wrong.

This takes no account whatever of the foreign demand. This will measure easily 300,000 tons a day. Some of it will go to Europe direct. Other tonnages will go to South America to move the crops to save us the annoyance of having to supply much larger quantities of food.

So, at our best, we are short by 300,000 tons a day of meeting the demand upon us for coal. Those are the figures. They are ugly. But balance sheets, which show in red, are never pleasant sights. We must look at this one squarely because it may mean that we will have to default in some of our serious war obligations—obligations to supply material to men who are fighting at the front.

WHO IS TO BLAME?

Before war was declared with Germany, efficiency was required in the management of every commercial enterprise in America. From the office boy in the administrative department of a commercial house or factory to the president of a railroad, it was a recognized and well-established condition of employment that business efficiency-getting results for the corporation, was required.

Maximum profits at minimum costs were demanded, but in both corporate and public service it was well established that maximum results came only when there was complete cooperation between employer, employed and public. The public furnished the motive for production, the employe the skill and brawn and the employer the dynamic energy—the capital upon which the enterprise depended to meet the demands for production. It was an ideal partnership. It made for friendliness in commercial exchange and encouraged employer and employed to consider service a pleasurable duty, and cooperation a necessity.

It would not be stating a truth to say that there were no exceptions to this rule or to claim that improvements were not possible, but generally speaking the business institution which was successful managed its affairs upon that basis. It was expressed tersely as "good business practice" and had become national habit.

This was before the war.

Today the "business efficiency expert" seems to have been forgotten. We are told—if we call attention to some glaring example of inefficiency or lack of the old cooperative spirit, that we have but one business before us—the winning of the war. The great work of military preparation is uppermost in most minds, but by some it is seized upon as an excuse for inconsiderate treatment of the public, for forcing new and most onerous conditions of labor, for *abuses in public and semi-public service which at other times would not be tolerated*, for discourtesy on the part of employes, for lack of courtesy to the public and—we fear—for what has almost become a great national grouch.

This indictment is couched in rather general terms and has no specific application to the thousands of employers or employed who just naturally feel that in time of stress there should be a closer union of interests between men, though one has but to keep eyes and ears open wherever business or public activities are carried on, to prove the indictment in hundreds of specific, individual cases.

The offense takes on various forms, from the profiteer who attempts to extract the last dollar or penny from the public for the least possible return in goods or service and the ticket clerk in the railroad office who answers prospective travellers with an uninterested or possibly impudent air, down to the least of unskilled employes. It includes not alone the man who palms off smaller portions of inferior goods at profiteering prices but the makers of legislation who unthinkingly oppress business and suppress production through unfair and inconsiderate law making. It includes the men who have been "gouging" the Government through delivery of inferior goods and the laborer who gives as little as possible in lieu of the maximum which old-time business conditions demanded.

If, in destroying the Hun and his hellish designs upon civilization and decency, we also create for ourselves a national disintegration of commercial spirit, wipe out business courtesy and win the war only to find that the labor or the financial profiteer or "pirate" is a dominating factor, then indeed will our victory have been a costly one, not alone in treasure and blood but in the loss of a phase of Americanism which has made for national unity and happiness.

WHY NOT FIND THE REASON?

From time to time the newspapers, probably basing their statements upon government reports, warn the public that the labor shortage in the mines cannot but result in a great coal shortage this coming winter. In at least one district, within recent weeks, the failure to market the proper amount of coal led the Provost Marshal's office to investigate statements that miners were leaving their work in such numbers that drastic methods would be necessary to prevent miners from entering the army.

It is admittedly true that there is a labor shortage. But it is as true that lack of system in transportation of coal when it is removed from the mines is another grave cause of danger.

It must be admitted that rolling stock, including locomotives, has been transported to the European battlefields lessening the traction possibilities and causing a readjustment of train movements, but it is certain that some method can be worked out whereby the maximum movement can be assured. In one district, the Clarksburg (W. Va.) field, large mining properties have been closed down as long as three days out of seven within recent weeks because of a glut of loaded cars and lack of engine power. Many miners have left these properties to go where they thought they could find continuous service. The fuel commissioner of the district has taken the matter before the Fuel Administration. His investigations have shown what, to the public and operators, appears to be lack of management in handling the traction situation. Investigation by operators appears to establish the fact that loaded coal cars often travel less than 100 miles in a week; that splendid, monster locomotives are only driven 100 miles in a day when mechanical experts assert that such machines should be made to pull loads for sixteen hours out of every twenty-four.

If a privately owned enterprise failed to produce 100 per cent results in time of peace the stockholders would demand to know the reason and to have a change in method or management. In these times, when men are giving their lives and both men and women are straining every nerve to keep things moving at high speed, it would seem that there is every reason to demand highest efficiency from the railroads upon which every phase of civil and military life depends for fuel—the life of industry. If there is inefficiency in management anywhere, if theories or rules of labor unions, or politics stand in the way, there should be no mincing of words. The simple statement that the war has created conditions which are difficult to meet is not enough. The surest way to win the war is to develop such efficient management of our internal commerce that the army and navy will be backed up by a nation which is sure of itself—because it is efficient.

THE ZINC "PROFITEER"

One of the most interesting statements yet placed before the War Industries Board was that filed and discussed by the committee of Joplin-Miami zinc producers which attended the recent meeting of the price-fixing committee.

THE MINING CONGRESS JOURNAL is permitted to give publicity to this detailed statement, which indicates the exact status of the zinc industry in these trying times and shows that under the existing agreement between the smelters and producers the margin of profits is dangerously small.

We give the brief and tables of costs in detail and feel impelled to remark that, had there been in existence a bureau of economics which could have given similarly complete statements to the war administration and the excess profits tax committee at the proper hour, there would have been less opportunity for the administration to mismeasure the load possible for the mining industry to carry in the distribution of the war burden.

The statement, signed by the committee, follows:

War Industries Board,
Washington, D. C.

Gentlemen:

In May, 1918, the high-grade ore producers submitted a brief before this board showing the cost of producing zinc concentrates in the Joplin district to be $58.37 per ton, made up as follows:

Operating cost per ton concentrates	$40.00
Depreciation and depletion	10.00
Royalty per ton concentrates, based on average price of $57.12 at 15% royalty	8.37
Total cost	$58.37

Since May, 1918, our operating costs have increased approximately 10 per cent, bringing the cost per ton of concentrates to $63. (Table showing increase in various items in operating expenses is attached hereto.) Statement showing details of production cost are as follows:

Operating cost	$44.00
Depreciation and depletion	10.00
Royalty per ton concentrates, based on average price of $60.08, at 15% royalty	9.00
Total cost	$63.00

The high-grade producers sold 45% of their production to sheet zinc manufacturers at $75. The balance was sold at the average low grade market, which made the average price received for all grades of zinc concentrates sold by high-grade producers from May 18 to August 17, $60.08.

The depreciation and depletion charge of $10 per ton concentrates used in this statement is insufficient. The present acute labor shortage results in such inefficiency that operators find it necessary to draw on their best ore to avoid serious loss. This will shorten life of mines very materially and charge for depletion should be increased to compensate for same. Development of new ore reserves is almost wholly neglected. Until the unfavorable conditions above mentioned have been relieved it is probable that the maximum production has already been reached.

Respectfully submitted,
High-grade Ore Producers
Joplin District—
P. B. Butler.
J. W. Hoffman.
H. I. Young.
C. F. Dike.
D. C. Corner.

Relative percentage of total mining cost as of May, 1918, and per cent increase between May and August, 1918.

Item.	Percentage of Operating Cost.	Per Cent Increase from May, 1918, to August, 1918.	Actual Increase.
Power	15	10	1.5%
Labor	55	10	5.5
Explosives	15	5	.75
Drill repairs	2	10	.20
Hard iron	5	5	.25
Belting	1	10	.10
Misc. supplies	7	15	1.05
	100	...	10.35%
Net increase in costs			10.35%

Cost per ton concentrates, May, 1918	$40.00
10% increase	4.00
Cost per ton concentrates, August, 1918	$44.00
Depreciation and depletion	10.00
Royalty per ton concentrates, based on average price of $60.08 at 15%	9.00
Total cost	$63.00

Lamp Substitution to Save Coal

The United States Fuel Administration, in connection with the manufacturers and dealers in incandescent electric lamps, has worked out a detailed plan for eliminating the inefficient types. The lamp manufacturers, at a meeting held in Washington, voluntarily agreed to abandon the manufacture of certain types of the inefficient carbon filament lamp, in accordance with the program which practically calls for the discontinuance of their manufacture and sale.

SEN. HENDERSON REWRITES THE WAR MINERALS BILL

Measure Goes to Senate Minus Minimum Price Principle and Other Features—Carries $50,000,000 Appropriation.

Senator Henderson, of Nevada, chairman of the Committee on Mines and Mining, reported the War Minerals bill to the Senate on September 5. His report to that body is as follows:

The Committee on Mines and Mining after consideration of the bill (H.R.11259) unanimously directs the chairman to report the same favorably, as amended.

Extensive hearings were held by the House Committee on Mines and Mining, and a most comprehensive report submitted by its chairman, both of which were carefuly weighed by your committee.

As is so often the case, however, the pasage of the bill in the House brought it to the attention of many who had theretofore shown no appreciable interest, and resulted in a flood of suggestions, additional information, and protests, directed to the bill as it came from the House.

The Senate Committee, therefore deemed it advisable to hold further hearings and allow those interested to express their views, and also investigate the further sugestions and new information which the publicity surounding the passage of the bill had caused to be placed before its members.

These hearings developed many new facts, and in view of these several changes were adopted, which necessitated the practical rewriting of the bill.

The minimum price principle had the approval of the House, but the attention of your committee was called to the possibility of the Government thereby incurring onerous obligations which might be avoided by an elaboration of the contract principle approved by the House, thus lessening the Government's liability. By the contract system, the Government would know definitely just what the obligation would be, whereas the minimum price feature might so stimulate production as to place it in a most embarrassing position.

The adoption of the contract system places the Government in the position of buyer and seller, necessitating an increase in the appropriation from $10,000,000 to $50,000,000. This, however, is a revolving fund, and should be returned to the Treasury through the various transactions when the purpose of the bill shall be fulfilled.

In the course of the hearings considerable opposition was expressed to the licensing feature, and it does not appear that this is essential to the successful operation of the legislation, and its withdrawal will render the measure more acceptable to the mining industry.

Many penalty provisions were contained in the House bill, but it is felt that this is sufficiently taken care of in Section 4 of the amended bill under the President's power to establish rules and regulations, and providing a penalty for failure to comply therewith.

The importance of legislation dealing with the necesities named in the House bill is fully recognized by the Senate Committee, and none of these are disturbed. "Sodium," however, was inserted in lieu of "sea salt," which would be included by the former. This is a more comprehensive term and was recommended by members of Government agencies interested in the supply of chemicals for the requirements of the United States. The Senate Committee also added "phosphorus," on account of the increased demand due to its utilization in various phases of war preparation, such as the smoke screen, steel manufacture, etc.

The importance of legislation affecting the subject matter of this bill is set forth in the report of the House Committee, Report No. 493. Emphasis is added by a letter of Secretary of the Interior Lane, and by Chairman Baruch of the War Industries Board.

BOARD ON METALLURGICAL MATTERS IS APPOINTED

In order to assure the more complete coordination of the various ordnance departmental activities along metallurgical lines, it has been decided to establish a Board on Metallurgical Matters. The appointment of this board will also assure the complete coordination of similar activities of the different divisions of the War Department and the War Industries Board.

The personnel of the board is as follows: Dr. G. W. Sargent, Engineering Division, chairman; Lieut. Col. W. P. Barba, Production Division; Maj. A. E. White, Inspection Division, representing the Ordnance Department; Lieut. Col. F. B. Richards, of the office of the Assistant Secretary of War; Mr. L. L. Summers, representing the War Industries Board, and Mr. William H. Smith, representing the manufacturers.

The board will act not only for the various sections of the Ordnance Department, but also in connection with the manufacturers working for and with the department in the production of war material, and will gather the most recent and complete information on all metallurgical products.

REVENUE BILL CARRIES OVER $8,000,000,000

Big Tax Measure Finally Introduced in the House—Bill Draws Fire of Senator Smoot.

The new revenue bill, which is expected to raise $8,182,492,000, was introduced in the House of Representatives on September 3. The Ways and Means Committee had a long struggle with the bill and some portions of the bill will be opposed on the floor of the House by members of the committee. The committee declined to embrace all the suggestions of the Secretary of the Treasury. Chairman Kitchin insisted on the maintenance of his idea of excess profits. The following published criticism of the bill appears to find much favor:

"A party in power may well view with some apprehension the approach of a national election of legislators following closely upon the enactment of the largest measure of taxation in history. The authors of this measure have attempted to confine the incidence of the taxes to small classes of contributors. For this reason corporation and large individual incomes and beverages are made to bear the greater part of the burden. Consumption taxes, the levy upon the breakfast table and upon the purchases of the great mass of people, have been studiously avoided. Yet it would have been just to call upon the mass of people to contribute in proportion to their expenditures, and therefore in proportion to their means, to bear a due share of the costs of the war of which the benefits will accrue to them in the same measure that they accrue to the persons who will be reached by this revenue enactment. For some reason which has never been made clear to the public, too, stamp taxes upon bank checks have been omitted from the bill.

"The members of the committee appear to have disregarded the danger that in taking billions from the income of individuals and corporations they are diminishing the fund from which subscriptions and payments for war bonds must come. They have trusted to patriotism, to the willingness of the people, no matter at what sacrifice, to make each bond issue successful, or they have trusted to pure luck in that respect, while carrying out their purpose to leave the great mass of voters free from imposts which might affect their political opinions and actions.

"The bill unanimously reported from the committee to the House is only a project of law; it must undergo the revision of the Senate Committee and of the Senate itself. Changes will be made, but the country should not entertain the belief that they will be important, or materially alter the nature of the bill or the principles upon which it was based. The time is too short. The appeal for subscriptions to the Fourth Liberty Loan is but a little more than three weeks away, and it is in every way desirable that the revenue measure should be out of the way before that subscription is opened."

Scenator Smoot refers to the bill as a "mess of absurdities."

Senator Smoot took particular exception to the alternative scheme of excess and war profits taxation proposed by the committee. He pronounced this "a penalty upon the nation's productivity," and declared it would be ruinous to industries vitally necessary to the prosecution of the war.

Senator Smoot aserted a close examination of the bill showed that it was framed "to hit as few voters as possible." He scored the committee for failing to levy consumption taxes and urged the adoption of a gross sales tax of about one per cent, which he said would yield $1,000,000,000 annually.

A very hurried examination of the new Revenue bill (H.R.12863) reveals changes which will be of special interest to mining men. This synopsis is not complete but will aid our readers in reaching a fair conclusion concerning its provisions:

Section 201. With reference to determining gain or loss from sale of property, an additional provision is inserted providing that if the property were acquired after March 1, 1913, "the cost thereof or the inventory value" shall be the basis, and section 202 following provides the conditions under which inventories shall be taken. This provision is somewhat obscure and a construction by the Department by way of a ruling will likely be necessary to determine the meaning of it.

Section 210. The normal income tax against individuals is changed from 2 per cent to 12 per cent, with a proviso that the first $4 000 above the credits shall be taxed at 6 per cent.

Section 211. Levies a surtax upon net incomes above $5,000, ranging from 2 per cent to 65 per cent of incomes in excess of $5 000,000.

The definition of income is substantially the same as in the present law.

Section 214. Pertains to deductions, paragraph 10 thereof making a material change in the depletion allowance for oil and gas wells and mines. This allowance is not limited to "the market value in the mine of the product thereof," as in the old law, but gives the power to the Secretary to fix a reasonable allowance, according to the peculiar conditions in each case, and the law extends this privilege to the owners of leases as well as the owners of fee.

Section 218. Provides that individual partners shall be liable for income tax for their proportionate part of the firm's earnings, whether distributed or not.

Section 230. Is the income tax on corporate earnings. This is a tax of 18 per cent upon the net income in excess of all credits, but providing that the rate shall be only 12 per cent upon all earnings distributed as dividends, and also 12 per cent on the amounts paid during the taxable year of the earnings in the discharge of interest-bearing obligations outstanding at the beginning of the year.

EXCESS AND WAR PROFITS

Section 301. Provides for the levying of an *excess profits tax* or a *war profits tax*, whichever will produce the higher tax, against the net earnings of all corporations, and the bill has defined corporations to mean "associations, joint stock companies and insurance companies as well as private corporations." This appears to be an important difference between the purported bill and the present existing law in that there appears to be no attempt to impose an excess profits or war profits tax upon the business of individuals and copartnerships. (The existing law [section 201] includes the individual and copartnerships.)

Section 302. Provides that where the invested capital is not more than $25,000 the tax to be imposed shall not exceed 35 per cent of the net income in excess of $3 000, and that if the invested capital is more than $25,000, but not more than $50 000, the tax shall not exceed 40 per cent of the net income. However, this limitation does not apply where the net income of such corporations is more than $50,000.

Section 303. Is an innovation providing that a corporation "the earnings of which are to be ascribed primarily to the activities of the principal owners or stockholders who are themselves regularly engaged in the active conduct of the affairs of the corporation and in which capital is not directly or indirectly a material income-producing factor," in lieu of the war profits and excess profits tax, shall pay a tax of 20 per cent of the net income in excess of $3,000. There is limitations, however, on this where the income or 50 per cent of it consists of gains derived from government contracts, or where the invested capital is more than $100,000, and in these cases this provision will not apply, but the general tax provision will be applicable. It appears that this section will include the case of prospectors in mining and oil where capital is not a material producing factor.

Sections 310, 311 and 312 are new and providing for war profits which allows the average actual pre-war earnings for the years of 1911, 1912 and 1913 as a deduction plus 10 per cent on any new capital introduced into the business since the pre-war period or less 10 per cent on any capital withdrawn from the business since that time. The difference between this deduction and the total net earnings for the taxable year shall bear a flat tax of 80 per cent known as the war profits tax. If the corporation was not in existence during such years the deduction will be $3,000 plus 10 per cent of the invested capital for the taxable year. This would seem to be very unfair to a new corporation, and especially to mining companies operating where the life of the individual mine is short and uncertain.

Section 315. This is the excess profits provision providing for an arbitrary allowance of 8 per cent upon invested capital plus $3,000, and a tax of 35 per cent upon the income in excess of the credit and not in excess of 15 per cent of invested capital, a tax of 50 per cent between 15 and 20 per cent of such capital, and a tax of 70 per cent on net income in excess of 20 per cent of the capital. A new provision of this section allows greater privilege in taking full credit from the next lower classification.

Section 326. Defines invested capital and i practically the same as the old statute except that paragraph 2 limits the cash value of tangible property to the par value of the stock issued therefor. This is practically the same as the old statute, but the Treasury Department in construing the law credited the excess value of property as "paid in surplus." An early draft of this bill contained a provision that a taxpayer would be entitled to the excess value of exchanged property as paid in surplus which was eliminated from the bill as reported. This might be construed as being intentional on the part of the committee to exclude that excess value of property from being considered as invested capital. *This is a very important* matter and no doubt the Senate will be asked to clarify the situation.

Section 327. Confers power upon the Department to grant relief as has been done under the present law under section 210. This is a good provision and should be retained.

Section 336. Contains a provision that no consolidated returns shall be considered, but that the tax must be assessed upon the individual corporation liable therefor. This provision will likely cause a great deal of contention.

Section 1000. Is the new excise rate of $1 for each $1,000 of value for all corporation stock. There is very little change in this except in the doubling of the tax.

Section 1200. Provides for an advisory board to be composed of five members to be appointed by the President and to be confirmed by the Senate. It is assumed that this board is to take the place of the present advisory board, but to have greater authority. The statute does not describe its duties.

New Hampshire Administrator Named

The United States Fuel Administration announces the appointment of Hovey E. Slayton, a prominent shoe manufacturer of Manchester, N. H., as State Fuel Administrator for New Hampshire.

COOPERATE TO STABILIZE CRUDE PETROLEUM PRICE

National Petroleum War Service Committee and Fuel Administration Take Decided Action.

A plan has been made effective through the cooperation of the National Petroleum War Service Committee and United States Fuel Administration that is intended to result in stabilizing the price of crude petroleum both to large and small refiners and maintaining the flow of crude oil in its present channels. It is believed that the arrangement will prevent any radical change in consumers' prices of gasoline and other oil products.

The details are to be handled by committees on conciliation and cooperation of the various producing fields. It has been the custom for various refiners to bid against each other for crude production by paying premiums in excess of the base rate for oil as established by the larger pipe line companies. This has resulted in the diversion of oil from one refinery to another and in many instances the payment of excessive prices for crude oil. It has led to considerable disorganization and for some months the Fuel Administration has sought to correct these practices. The greatest difficulty arising from this situation was experienced in the Mid-Continent field.

Mark L. Requa, General Director of the Oil Division of the United States Fuel Administration, recently met the producers and refiners of the Mid-Continent field in meetings at Tulsa, Oklahoma, and Houston, Texas. As a result of his suggestions the producers and refiners named from their own members committees to adjust any local dispute which, in the event they were unable to settle, it was agreed, would be referred to the National Petroleum War Service Committee. Should the National Committee be unable to adjust the dispute referred to it then appeal may be had to the Fuel Administration.

The plan provides generally for maximum premiums to be paid for oil of varying qualities in the various fields throughout the United States. It arranges, so far as is practicable, for the flow of oil in existing channels and assures protection as to price and supplies for small refiners. At the same time it will prevent any radical change in consumers' prices due to the competition which has influenced such prices.

The Fuel Administration believes that by leaving the settlement of all questions as to premiums and diversion of crude oil to the voluntary agreement of the industry itself the harmonious relations between the various interests will be maintained.

The Fuel Administration is also endeavoring to have established fair differentials for refiners and distributors.

It is believed this plan will assure the producer a satisfactory price for his oil; the independent refiner protection against the higher bids of his competitor who would pay a greater premium and that the flow of production will be maintained without interruption or change. Thus the oil industry is contributing to the war-work program by eliminating conditions which have arisen out of the premium practice and through the harmonious adjustment of such differences as have existed in the past.

Conditions Grew Worse

Denver, Colo., August 21, 1918.

Mr. J. F. Callbreath, Secretary,
The American Mining Congress,
Munsey Building,
Washington, D. C.

Dear Mr. Callbreath:

I see that in the August issue of the Congress Journal you have reproduced my letter to you in respect of gold production; in which I suggested certain requirements as forming, in my judgment, the absolute minimum if production was to be maintained; but that, if increased production were required, a bonus in some form would be necessary.

May I be permitted to say, through the same channel, that the conditions, especially as to labor, have become still more unfavorable since that letter was written. I am now convinced that unless direct assistance, sufficient to absorb the increase of costs, is promptly forthcoming, the larger number of gold mines in this State will close down. If, later on, the Treasury should find that increased production of gold within the United States is necessary, we should have to resort to government operation, for gold mining is at best not a very profitable industry, and a large proportion of gold mines will not justify reopening with private capital under war conditions.

Yours sincerely,
George Collins.

Production Records Broken in Connellsville

Where the car supply has permitted, there has been marked stimulation of energy in bituminous coal mining regions. Report received by James B. Neale, director of production of the United States Fuel Administration, is to the effect that for the week ending August 23 the Connellsville field showed a production of 716,954 net tons, breaking all previous records for output for this district.

Moseley Appointed

The selection of Mercer Pamplin Moseley as assistant fuel administrator for the state of New York has been approved by United States Fuel Administrator H. A. Garfield, and announcement to that effect has been communicated to Delos W. Cooke, New York state fuel administrator. Mr. Moseley succeeds C. E. Robertson, resigned.

SUGGESTS REMEDIES TO AID THE GOLD MINING INDUSTRY

Helena, Mont., August 2, 1918.

J. F. Callbreath, Secretary,
American Mining Congress,
Washington, D. C.

Dear Sir:

Under the heading "Crisis in Gold Mining," Engineering and Mining Journal (New York), July 20, 1918, p. 140, it is stated that the advisory committee, referred to, is anxious for suggestions, same to be sent to your office.

Prior to reading the above item, I had prepared the following and beg to submit the same for consideration. I also refer to the Mining and Scientific Press (San Francisco), December 29, 1917, p. 924, "Do We Need Gold?" as my views of the situation, early in the discussions on Gold Mining which, from last fall on, have become more and more insistent.

GOLD, THE STANDARD OF EXCHANGE

The fixation of the value of gold, *i. e.*, the coin, or exchange, value, represented by an ounce of the metal, was an arbitrary matter, but, in its inception, bore a general relation in the conception of its originators, to the value of articles of commerce and labor, of the time.

World-wide influences markedly and materially altering *these relations*, it is logical that the commercial powers—the nations of the earth—now in position to act in unity, establish a *new relation* between this, the most rational of all metallic metals of exchange, or medium of exchange, and the articles of commerce and labor.

Prior to the advent of the war, the relations between the medium of exchange and commerce and labor, were hurrying to a crisis, soon to demand an adjustment. Per capita production of gold was diminishing as well as the proportion of gold to general business transactions. The tenor of available sources had reached a low point and deposits were worked on most tenuous margins that the supply might be maintained. With the war, and the rise in materials and labor, these, and gold mining in general suffered, the burden steadily increasing until, now, we are told that the falling off will reach 35 per cent. This is due to the wide disparity between this, the fixed medium of exchange for, and the articles of, commerce and labor necessary to its production.

It is, then, as stated in the first paragraph, logical, that the nations of the earth, the allies with their productiion of 85 per cent of the gold of the world, *fix* a new relation between this, the recognized medium of exchange and the articles of commerce and labor.

Immediate action is imperative. Such *fixation* can be but tentative. An allied conference spells delay. Being tentative, pending the termination of the war and establishment of post-war normal commercial conditions, such tentative fixation is practicable through the legislative powers of the largest credit nation, fortuitously one of the largest gold producers, of the world, viz. the United States, preeminently in position to do this.

Emergency action is essential, is imperative; there is no room for argument. Such argument as there has been, since the advent of the war has all been on the one side, *i. e.*, the *essential* nature of maintaining and increasing gold production, in itself the most convincing argument against the present unbalanced relation between the medium of exchange and articles of commerce and labor.

REMEDY

The first step is to effectively suppress propaganda and departmental action against financing gold mining enterprises. This, as with the profiteering of the past months, bears the ear-mark of the hoarder of gold who looks to the day of a premium, by stress of conditions; remove the fixed—or implied—embargo against manufacture and transportation of mining and metallurgical machinery and supplies essential to gold mining and production; stabilize prices for essential mining, milling and metallurgical supplies.

The second step; determine, as affecting conditions in the United States and in its relations to international commerce, a relation of the value, per ounce, of the medium of exchange to articles of commerce and to labor, commensurate, as nearly as practical, with existing conditions, this to serve, tentatively and until a value can be *established*, by agreement, between the dominant nations of the earth.

As a war-measure, temporrary relief may, in part, be afforded by the removal of federal taxation *on gold* production of gold mines and others, producing, in part, this metal. This action will, logically, be followed by the gold producing states, by similar action. Alone, such action would release some gold production, taken together, with the tentative fixation of value, as a war measure, the two afford a rational solution that will insure a maximum supply. Substitution of this, as a war measure, by international fixation of relative values between gold—the medium of exchange—and articles of commerce and labor, to take place upon the return of stabilized commercial conditions, after the war.

A bonus on gold is but an incentive to dishonesty and its trail of evils.

To allow gold to "go to a premium" but affords the profiteer his opportunity, to the injury of law-abiding citizens and, due to the uncertainties of a fluctuating and speculative range of values, for gold offers little inducement to the investor or operator, hence *will not* maintain or increase the production, and will *per se* carry with it increased cost of materials, supplies and labor.

Great Britain, at the time of fixation of the relative value of gold, was preeminently in position to do so, the relation, in terms of our currency, being one ounce gold to $20.67, standard of value, as represented in articles of commerce or labor. The United States, due to its position as the largest creditor nation, the largest manufacturing and exporting nation, is today in like position. Action by this country will receive the cordial endorsement of Great Britain, of France, of the allies.

The fixation of relative values is not a parallel to the yard stick, as one editorial writer puts it:

"The price for gold is *not* fixed. Commodities are exchanged for a certain quantity of gold, and it does not matter whether that be expressed in ounces, dollars or pounds sterling. Any change in the basis of exchange would be like a modification of the yard stick. A decree that the yard should be henceforth 72 inches long, instead of 36 inches, would not induce anybody to part with twice as much cotton cloth for the same money," i. e., the "same" medium of exchange for which he parts with his 72 inches of cotton, for in his statement he overlooks a factor in the transaction, viz.: the medium of exchange. (Engineering and Mining Journal, New York, July 27, 1918, p. 189.) In the same issue, page 165, second paragraph, Mr. Thane says: "The value was arbitrarily fixed by the Bank of England * * *."

That the present relation between the value of gold and trade "was fixed"—to accord with the then existing conditions—permits and justifies the fixation today to meet the vastly altered relations. This, then, is the only logical course to follow.

Respectfully submitted,

L. S. Ropes.

Copy to Hon. T. J. Walsh, U. S. Senator, for Montana.

NO PRIORITY FOR MATERIALS FOR NEW OIL REFINERIES

The United States Fuel Administration has announced that owing to the shortage of steel and other materials, and because there is ample refining capacity in the mid-continent oil fields to take care of existing demands, it would not approve any priorities for materials to be used in the construction of new refineries.

Priorities will be approved for materials to maintain existing facilities and for such additions thereto as are necessary in the national interest.

WESTERN COAL BEING TRIED OUT IN CHILE

As a means of relieving the pressure upon eastern coal, the United States Fuel Administration has arranged a test of state of Washington coal in South American industrial plants.

Trial cargoes were recently shipped from Puget Sound to Chile. The coal cargoes were accompanied by fuel experts, who will conduct the experiments.

Heretofore the coal for South American export has been taken from the mines of West Virginia, Pennsylvania and Maryland, which mines are now carrying the heaviest burden in producing coal for government uses. It is estimated they are 14,000,000 tons behind the production required from them to meet the war demands.

If it should be demonstrated that the western coast coals will answer the South American demands, a measure of protection will be afforded the eastern mines, the product of which is under heavy demand for navy uses, for bunkering of ships, and for industrial purposes in the congested manufacturing section of the northeast.

Kentucky Fields Re-classified

The coal fields of Kentucky have been re-classified into five producing districts by an order of the U. S. Fuel Administration, effective August 23. The order also fixes the prices at which coal shall be sold within each district. No changes of existing prices have been made except at certain thin vein mines of the Hazard and Elkhorn fields which have been given an increase of price equal to other fields where the same character of coal is mined.

Heretofore, the state was divided into two grand districts, the 85th degree of longitude being the dividing line. Under the new classification maximum prices for each of the districts have been fixed for run of mine, prepared sizes and screenings, in the order given, as follows:

District No. 1.........	$1.90	$2.15	$1.60
District No. 2.........	2.10	2.35	1.85
District No. 3.........	2.55	2.80	2.30
District No. 4.........	2.20	2.45	1.95
District No. 5.........	2.20	2.45	1.95

Exceptions are made in the following cases:

Blue Gem Coal Co., $3.55, $3.80 and $2.40; Wallan-Jellico Coal Co., $3.25, $3.50 and $2.50; Elkhorn City Coal Co., and Guthria Coal Co., $2.55, $2.80 and $2.30.

To all of the above prices may be added 45 cents per ton for wage increase if the producing companies are entitled to add such allowance under the President's order of October 27, 1917.

D. C. THOMSON
Consulting engineer

COAL MINES GET PREFERENCE OVER OTHER WAR INDUSTRIES

Coal comes first under an order of the War Industries Board covering the distribution of power by the West Penn Power Company, in the Pittsburgh district. The order will give coal mines a full supply of power, although other war industries served by the West Penn Company are now working a restricted number of hours.

Under the tremendous increase of war industry in the Pittsburgh district, the West Penn Company was overloaded. A breakdown in generating machinery added to the shortage. Under a previous plan, it was proposed to meet the shortage by dividing the power among all the essential war industries in the district, restricting lesser essential plants to night operation. Under this plan the coal mines, numbering about 150 in the Pittsburgh district, would have been forced to accept their pro rata share of the curtailment.

The vital importance of maintaining the increased production of coal and the necessities of industries served by the mines in the Pittsburgh district, presented to the War Industries Board by the Fuel Administration, prompted the order giving the mines first call on the available power.

EXISTING COPPER PRICE IS EXTENDED TO NOVEMBER 1

The President has approved an agreement, made between the producers of copper and the Price Fixing Committee of the War Industries Board (after investigation by this committee in conjunction with the Federal Trade Commission as to cost of production), that the maximum price of copper shall be twenty-six cents per pound, taking effect August 15, 1918, for shipments after said date, but subject to revision after November 1, 1918, f. o. b. cars or lighters at eastern refineries, f. o. b. cars or lighters at Pacific Coast refineries for Pacific Coast destinations, and f. o. b. cars or lighters New York if shipped to eastern or interior destinations from Pacific Coast refineries and from refineries in the interior of the United States. All shipments made after November 1, 1918, are subject to any change in price made by the Price Fixing Committee to take effect after that date. This maximum price is subject to the additional charges on copper shapes approved by the Price Fixing Committee on June 5, 1918.

The conditions are: first, that the producers of copper will not reduce the wages now being paid; second, that they will sell to the United States Government, to the public in the United States, and to the allied governments at not above the maximum price; third, that they will take the necessary measures, under the direction of the War Industries Board, in the distribution of copper to prevent it from falling into the hands of speculators, who might increase the price to the public; and fourth, that they will pledge themselves to exert every effort necessary to keep up the production of copper so as to insure an adequate supply so long as the war lasts.

Assistant Directors of Munitions

Benedict Crowell, the Director of Munitions, has announced that he has selected Thomas Nelson Perkins and G. H. Dorr to act as assistant directors of munitions.

Mr. Perkins was appointed counsel to the War Industries Board in October, 1917. In that capacity he accompanied Colonel House on his trip to England and France last autumn. On his return, after serving about six weeks as a member of the Priorities Committee of the War Industries Board, he became assistant to Mr. Stettinius when he was appointed Surveyor General of Supplies, and has been associated with Mr. Stettinius until this time.

Mr. Dorr was connected with the War Trade Board from August to December, 1917. Since that time he has served in the War Department as an assistant to Mr. Crowell. He was formerly Assistant United States Attorney for the Southern District of New York.

ALABAMA PRICE ADJUSTMENT ENDS EXTENSIVE EXAMINATION

Coincident with the first anniversary of Mr. Garfield's incumbency of the position of United States Fuel Administrator an order was signed by him that marks the last stage of an examination into the cost of bituminous coal production in the various coal fields of the United States.

The coal fields of Alabama, which are the last to be examined, presented some of the most difficult problems which the engineers' committee of the Fuel Administration was required to handle. This was due to the fact that there are no clearly defined fields. Rather the coal measures overlap each other and must be determined by seams.

The general result as far as the cost to the public is concerned has not been materially altered, as the increases of price allowed to some mines are fully offset by decreases in other mine prices.

Comparisons with former prices are not possible on account of the new classifications being entirely different from those which were heretofore in effect.

With the completion of the examination of mining costs one of the most serious as well as one of the most difficult phases of the work of the Fuel Administration has been accomplished. An idea of the size of the task may be gathered from the fact that there are approximately seven thousand five hundred coal operators in the United States, and under the law each is required to furnish the Federal Trade Commission with monthly cost sheets.

When the President, one year ago, announced the Government control of fuel and the formation of the Fuel Administration, comparatively little information was at hand relative to the cost of production. Prices were announced, based on such information as had been obtained by the Federal Trade Commission and U. S. Geological Survey, and after conferences had been held between these bodies and the leading authorities on coal in the United States. With his announcement of prices the President stated that they were provisional, leaving to the Fuel Administrator revisions and adjustments from time to time.

Relief was given during the autumn to various fields and operators where it was apparent injustice had been done in the fixing of prices upon such information as had been afforded by the rapid investigations theretofore made.

In January, 1918, a definite policy for adjusting production costs had been completed and the matter of adjusting prices to costs was undertaken by a committee composed of Cyrus Garnsey, Jr. (who has since become Assistant U. S. Fuel Administrator), R. V. Norris and James H. Allport.

The form of cost sheets was the same adopted by the Federal Trade Commission, and upon these the coal operators are required to make monthly statements to the Fuel Administration.

Having now determined the various classifications and general basic cost of the production of coal, it will be a comparatively simple matter to tabulate and adjust the variations of the cost of production from month to month, and it will be possible to keep before the Fuel Administrator tabulations of figures showing how varying labor conditions, cost of mining material and car service will affect the cost of production.

The order effective August 23, announces a complete re-classification of the mining fields of Alabama and fixes the mine prices within each of the fields, as follows:

District No. 1, Big Seam Group, to wit: Big or Mary Lee and Newcastle Seams, Blue Creek Seam, except on Birmingham Mineral Branch of L. & N. Railroad south of Bessemer, Brookwood-Milldale Seam when worked together, and Henry Ellen or Acmar Seam. Run of mine, $2.00; prepared sizes, $2.30; slack or screenings, $1.95.

District No. 2 to wit: Cahaba Group, being all seams in Cahaba field including the Montevalle group, excepting the Climax, Henry Ellen or Acmar, Helena and Harkness Seams, and the No. 2 Belle Ellen Mine in the Youngblood Seam.

Black Creek Group, being the Black Creek, Milldale, Carter and Durie Seams, the Underwood Seam in Etowah and Blount Counties, and the Jefferson Seam in Marion, Walker and Winston Counties. Run of mine, $3.00; prepared sizes, $3.30; slack or screenings, $2.65.

District No. 3 Pratt Group, to wit: Pratt Corona, Brookwood, Nickel Plate, America, Jagger, Coal City, Marion and Belmont Seams, Jefferson Seam except in Walker, Marion and Winston Counties, Mount Carmel Seam or upper bench of Big Seam and Blue Creed Seam on Birmingham Mineral Branch of L. & N. Railroad south of Bessemer. Run of mine, $2.40; prepared sizes, $2.60; slack or screenings, $2.00.

District No. 4, to wit: Helena and Harkness Seams and coal mined by No. 2 Belle Ellen Mine in Youngblood Seam. Run of mine, $2.45; prepared sizes, $2.75; slack or screenings, $2.25.

District No. 5, to wit: Mines in the Climax Seam, in or about Maylene, Shelby County. Run of mine, $4.15; prepared sizes, $4.40; slack or screenings, $2.05.

To the foregoing prices there may be added the 45 cent allowance for wage increase, if the producing companies are entitled to add such allowance under the President's order of October 27, 1917.

CONTINGENT FEE PERMITTED IN COAL NEGOTIATIONS

That the so-called "Contingent Fee Covenant," directed by the President to be inserted in all government contracts is not applicable to the coal industry, is clearly set forth in a communication to the U. S. Fuel Administration from T. W. Gregory, Attorney General.

In order to break up the practice followed by many business concerns of negotiating government contracts through brokers or contingent fee operators, the President directed the insertion of a covenant in all government contracts prohibiting the practice

To ascertain the influence of the covenant upon the sale of coal the Fuel Administration submitted to the Department of Justice, four interrogatories as follows:

"1—Where coal is purchased by a jobber from an operator at a price below the mine price fixed by the President or the United States Fuel Administrator, can such jobber sell such coal to the United States Government at the mine price so fixed? Of course in the case of such a sale, the jobber would be the "contractor" and not the operator, and it would appear that the profit realized by the jobber might not be construed as compensation paid by the operator to the jobber for the procurement of the contract.

"2—Is the above provision intended to prevent an operator from employing a sales agent on sales of coal to the Government where such sales agent receives as compensation for his services either a fixed price per ton or a percentage of the selling price? In the determination of this question it should be borne in mind that many coal operators do not maintain their own sales departments but employ established distributors of coal to act as sales agents under term contracts, on which such sales agents undertake to sell the output or a given quantity of the operator's coal for a fixed or percentage compensation.

"3—Is the above covenant to be construed to prevent any agency of the Government from employing a distributor of coal as purchasing agent and paying such agent the commission allowed by the Rule 2 of the Rules and Regulations in reference to licenses contained in Publication No. 22, enclosed herewith?

"4—Are contracts between coal operators and railroads to be construed as government contracts so as to require the insertion therein of the covenant quoted above? In answering this question the fact should be considered that a very large percentage of coal purchased by railroads in the past has been purchased—

"(1) At the government price through jobbers, who in turn purchase from the operators below the government price.

"(2) At the government price from sales agents, who receive their compensation from the operators.

"(3) At the government price through purchasing agents employed by the railroad and paid by the railroad the purchasing agent's commission permitted by the above mentioned Rule 2."

The Attorney General's ruling is contained in a letter dated August 19, which reads as follows:

"I have before me your letter of July 20th on the subject of the covenant against contingent fee operators which the President has directed to be inserted in all government contracts.

"You ask how far the requirement of the insertion of this covenant is to be observed in certain circumstances arising in the coal industry, and what its effect will be if so inserted.

"I have no hesitation in saying that the circumstances set forth in your first, third and fourth paragraphs are within neither the letter nor the spirit of the covenant.

"In the second paragraph you ask

"Is the above provision intended to prevent an operator from employing a sales agent on sales of coal to the Government where such sales agent receives as compensation for his service either a fixed price per ton or a percentage of the selling price?

"The letter of the covenant and the President's request is broad enough unquestionably to include such a situation, but it is clear, when the attendant circumstances are considered, that the situation is not within the spirit either of the President's order or of the covenant. Rules and regulations have been promulgated relative to licenses for the distribution of coal and coke by which the compensation to be paid to sales agents is rigidly controlled. Manifestly, it was not the intention of the President in requesting the the insertion of this covenant to modify the policy or affect these rules and regulations. The situation in the coal industry is, therefore, outside the mischief which the covenant was intended to cure, and unquestionably outside the President's intent.

"It is my opinion, therefore, that the covenant has no relation to any of the situations set forth in your letter."

Bona Fide Contracts Stand

Bona fide contracts relative to charcoal made prior to the order of July 8, 1918, fixing the maximum prices of lump and screened charcoal in carload lots, will not be affected by this price order, in the absence of further express orders or regulations by the Fuel Administrator.

Neither shall the price fixing order be construed to impair the right of any shipper to charge and collect the contract price for any shipment of charcoal heretofore or hereafter made under any such contract.

An order to this effect was promulgated by the U. S. Fuel Administration, August 13.

USE OF PRISON LABOR ON GOVERNMENT WORK URGED

The War Labor Policies Board has approved the policy of employing prison labor for government work as a war emergency and suggested that Congress provide by legislation for effectively carrying out the proposal and for avoiding the abuses of exploitation of the contract system.

This corresponds to the recommendations of the War, Navy and Labor Departments, and the War Industries Board, who have all approved the war prison labor bill now before Congress. This bill was prepared by the American Federation of Labor and the National Committee on Prisons and Prison Labor and has the approval of the President.

The principles embodied in the war prison labor bill were established by an overwhelming vote in July, when Congress passed the Sherley bill providing for the use of Federal prisons at Atlanta in the manufacture of cotton fabrics for the use of the War Department.

The demand on the part of the prison wardens throughout the United States, as well as the men behind the prison bars numbering more than 100,000, that they be allowed to help the Government in its war program has given the bill the universal sanction of the states.

The American Federation of Labor, which has been among the most ardent advocates of this legislation, has provided for safeguards whereby the manufacturer and free labor will not suffer from unfair competition. In fact, the bill provides against the practice of contractors who are able to procure prison labor at a very cheap rate and make enormous profits in competition with other business organizations engaged in government work.

EMMET D. BOYLE HEADS PERMANENT GOLD CONFERENCE

With characteristic business acumen, the gold producers of the nation responded to the call for a conference on the gold situation at Reno last month. The call, issued jointly by Gov. Emmet D. Boyle of Nevada and The American Mining Congress, was the direct result of the investigations begun simultaneously by the Bureau of Mines through a committee headed by Hennen Jennings, The American Mining Congress, and by several state organizations, in consequence of most startling statements which had been made in England by Sir Lionel Phillips and in the United States by such eminent authorities as Mr. Jennings, who had given considerable time to a study of the world's gold supply. These statements showed that at the present rate of decrease in production and the abnormal increase in credits based upon a failing gold reserve, not only the United States but the whole world was facing a financial crisis.

The reasons for a conference were fully stated in the August issue of this JOURNAL. From many quarters came suggested panaceas, some practical, some quite removed from the realm of possibilities without revolutionizing the financial standing of the United States.

When the gold producers assembled in Reno there was a very frank and open discussion of the gold industry and its elements of profit and loss. It was quickly recognized that if federal aid was desired by the gold men there must be put aside all theories and ideals and all desire for unusual profits. The entire problem must be placed before the Government in the form of a concrete argument showing in terms of dollars and cents the reasons why gold production must cease in certain districts and slow down in others unless there be given immediate relief.

The conference resolved itself into a working committee under the name "The American Gold Conference," and it is planned to maintain its work until some form of relief is granted acceptable to the men who are looked to as responsible for keeping up the production.

There was no tendency on the part of the speakers or delegates to create a "scare" regarding the danger to the world's credit, but there was a prevailing spirit of earnestness and fairness in all discussions. Governor Boyle, to whom must be given the credit of leading out in the recent effort to secure relief for the silver producers, had not failed to impress the representative producers and financiers of the country with the real need of getting together on this matter, and the list of delegates included many eminent men of affairs and the representatives of many large producing corporations.

The conference finally adopted a very reasonable and conservative resolution as expressing the consensus of opinion, and which, after declaring that a war emergency exists and giving the reasons therefor, suggests relief in the following terms:

"Resolved, That it is the sense of this meeting that of all the various measures which have been suggested the following will be most effective in maintaining and encouraging production of gold in the United States, namely:

"Relief by the United States to the gold producers of this country to correspond with the increased cost of production, the extent of such relief to be fixed from time to time to meet changing conditions.

"That nothing contained in these resolutions as passed is to be construed as meaning an intention to alter the amount of gold in the dollar, nor to place a premium upon gold."

Governor Boyle was elected as president of the permanent conference, and Henry M. Rives, secretary of the Nevada Mine Operators' Association, was elected secretary. It was decided to raise sufficient funds with which to meet the expense of assembling data and presenting the same to Congress and several thousand dollars were raised at the conference and placed in the hands of a finance committee, composed of Eugene Davis, of Nevada; G. W. Starr, of California, and G. M. Taylor, of Colorado.

A general committee, composed of one member from each gold producing state, was authorized, and an executive committee, composed of Governor Boyle, W. J. Loring, Bulkeley Wells, Whitman Symmes and George W. Starr, was elected.

This executive committee will soon visit the National Capital, and in conjunction with the Bureau of Mines committee and The American Mining Congress will place the evidence before Congress and insist that a legitimate measure of relief be granted.

Among those who were present at the Reno conference were President Albert Burch, of the California Metal Producers' Association; Bulkeley Wells, governor of the Colorado Chapter of The American Mining Congress; George M. Taylor, president of the Colorado Metal Mining Association; H. N. Lawrie, chairman of the Oregon Bureau of Mines and Geology; Prof. Francis C. Lincoln, director of the Mackey School of Mines; L. A. Friedman, of Lovelock, Nev., member of the National Board of Directors of The American Mining Congress, and C. C. Plehn, of the University of California.

The delegates numbered sixty, representing Arizona, California, Colorado, Utah, Montana, Nevada, Oregon Idaho, and Alaska The American Mining Congress and the United States Bureau of Mines were represented.

The conference was notable for the sound business judgment which pervaded the discussions and the declaration of its final resolutions—that the value of the American dollar must not be tampered with—will probably go far toward winning the immediate respect of the nation in considering the claims of gold producers at this time.

Great Saving Through Work in Power Plants

The United States Fuel Administration's conservation bureau has reported a saving at the rate of 350,000 tons of coal annually in its campaign for fuel economy in steam power plants. This saving has been initiated through the inspection of 300 of the larger plants of the country.

Each of the 250,000 plants in the country will be inspected as fast as the work can be accomplished, and it is estimated that 20,000,000 tons of coal can be saved.

This saving has not been effected by any closing down or curtailment of industry, and is the result of applying scientific methods to the operation of boilers and engines. It has put money in the pockets of the plant owners and at the same time made available a large amount of coal for war needs and for heating homes next winter.

EXPECT TO SPEED UP ALL BRASS MILLS IN COUNTRY

At a conference with Bernard M. Baruch, chairman of the War Industries Board, and other officials of the board, representatives of the brass manufacturers promised full cooperation with the government officials in plans to speed up the rolled brass mills production to cure a shortage in the supply of essential war material, such as shells, cartridges, condenser tubes, etc. Plans suggested to this end were:

1. Each mill to take its full share of government business.
2. Each mill to take work best suited to its equipment.
3. Cut off all non-essential uses of the products in which there is a shortage.
4. Determination by the manufacturers to get out the product in the face of obstacles; in other words, to work up to full capacity.

The meeting of the manufacturers to consider the Government's requirements for its own forces and to supply the needs of the Allies was called by Everett Morss, chief of the Brass Section of the War Industries Board. The industry was largely represented.

The chief difficulty in the way of maximum production, it developed, was shortage in labor. It was stated that with 9,600 additional unskilled laborers the mills could increase their output 33 1-3 per cent. Theoretically, there is mill and machine capacity to meet demands, but full capacity is seldom attained at a mill. A number of plants are installing additional facilities and the output of such plants will be increased shortly.

The cutting out of non-essential uses of the particular products needed in the war program was urged as a necessary move in the plan to give some relief immediately to a situation that is serious. This part of the program to prevent shortage in war material will be taken care of later by the War Industries Board, and the manufacturers pledged their best efforts to get the greatest production from their mills. Their gross production is now figured at about 2,910,000 pounds per day. An increase of a third would give a production of 3,388,000 pounds per day, while the gross demands, according to latest figures, are about 4,685,000 pounds per day.

Send Big Oil Tanks Abroad

The Fuel and Forage Division of the Quartermaster Corps has procured four oil tanks of 55,000 barrel capacity each, which will be shipped to France and erected there for the use of the American Expeditionary Forces. These tanks will give storage for 11,000,000 gallons of oil or gasoline, an amount approximating the requirements for a period of two months.

STORAGE OF COAL AT PLANTS LIMITED

Inequalities in Size of Coal Reserves Lead to Order Looking to Equalization.

The tremendously increasing demand for coal for special war purposes in the eastern part of the country, particularly for the Navy and Transport Service is making it necessary to draw more heavily on the Eastern coal fields than was originally contemplated.

In order to decide how best to secure this coal for these purposes with the least disturbance of coal supply moving to other industries, a meeting of all State Fuel Administrators east of the Mississippi and also the States of Minnesota, North Dakota and South Dakota was held in Washington August 20.

At this meeting it was decided that to accomplish the desired result it would be necessary to limit the amount of coal storage that industrial plants would be allowed to accumulate and to carry on hand and to fix a uniform amount for each State.

United States Fuel Administrator Garfield announced the basic policy of the Fuel Administration as to storage as follows:

"Coal in excess of that required for current operations shall be delivered to plants not on the Preference List of the War Industries Board only when it is not in demand for use before April 1, 1919, by consumers on said list, namely, railroads, the Federal Government, states, counties, public utilities, retail dealers, or manufacturing plants on the Preference List.

"In carrying out this policy, allowance shall be made for differences in distance from the mines and for differences in transportation conditions which may require more or less storage at the beginning of winter to insure uninterrupted operation until the following spring."

MAXIMUM NUMBER DAYS STORAGE BITUMINOUS COAL ALLOWED UNTIL FURTHER NOTICE

	Public utilities	Steam coal		By-product and gas coal		
		Preferred industries	Non-preferred industries	By-product and gas plants	Preferred industries	Non-preferred industries
Maine	120	90	30	120	90	0
Mass. Vt., N. H., Northern N. Y	90	60	30	90	60	0
Conn., R. I.	75	45	20	75	45	0
Southern N. Y., N. J. Del., Eastern Pa	30	30	15	45	30	0
Md D. C., Va., N. C., S. C., Ga., Fla., Western Ohio	30	30	15	45	30	0
Western Pa., W. Va., Eastern Ky., Eastern Ohio	30	20	15	45	30	0
Lower Michigan	90	45	20	60	60	0
Ill., Ind., Mo.	...	...	...	60	60	0
Wis., Minn., N. D., S. D., Upper Mich.	...	...	...	90	90	0

The following report, framed by a committee of State Fuel Administrators aided by officials of the Administration, was adopted by the conference, and concurred in by Dr. Garfield:

"The maximum limits of storage indicated for the several states or parts of states defined hereafter are as follows (see table).

"It is understood that these limits are mandatory and each Fuel Administrator is expected to see that the different classes of consumers are not allowed to exceed these limits. At the same time, it is understood that particular cases may require special treatment by a State Fuel Administrator, either by way of granting more stocks of coal than are indicated by these limits, or by restricting them to a less supply than indicated by these limits.

"Where a State Administrator decides that the maximum limit should be exceeded in a special case for some special reason, he shall have authority to grant a revocable increase in writing for a specific added number of days. The administrator shall report each such specific case in writing immediately to the United States Fuel Administration at Washington, which may in writing disapprove the extension granted by him. Otherwise, it shall stand subject to action of the State Fuel Administrator.

"Any company or concern which is permitted under the zoning regulations now or hereafter in force, to obtain coal from Illinois, Indiana, Western Kentucky, or from mines west of the Mississippi River may retain such reserve stock of coal as it shall have on the effective date hereof, on condition that such company or concern shall thereafter use sccreenings or mine run only, for its current necessities, and shall obtain such screenings or mine run for current use only from such last mentioned fields."

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GENERAL WAGE INCREASE GRANTED AT HERCULANEUM

William H. Taft and Frank P. Walsh, sitting as arbitrators on behalf of the National War Labor Board in the dispute between the management and the employes of the St. Joseph Lead Company at its lead smelter in Herculaneum, Mo., have rendered an award which grants to the workers a general increase in wages, establishes a minimum wage, and provides a system of collective bargaining between employer and employes. The award is made retroactive to April 21, the date on which, at the suggestion of the striking employes, the two parties jointly submitted their dispute to the jurisdiction of the board.

The arbitrators held the increase in wages to be necessary in order to maintain in full health and efficiency the workers in this primary war industry, which, the opinion points out, produces one-ninth of all the lead mined in this country. The product goes chiefly into bullets and shrapnel. It was found that the workers, who are peculiarly subjected to the danger of "lead poisoning," had suffered an alarming number of workless days through sickness, and were often supported during such periods from the funds of their labor union, since their wages were frequently too low to make possible any savings. For the same reason many workers were obliged to default in their Liberty Loan payments. The efficiency of the plant had likewise suffered from an enormous labor turnover, sometimes as high as 200 per cent per annum, partly due to the rate of wages.

The arbitrators granted the wage increase on a sliding scale, in harmony with the principle recently applied by the Railroad Wage Commission, giving to the $3 a day men a flat raise of $1, or 33 1-3 per cent, and graduating the rate of increase down to 10 per cent, or 50 cents a day for those earning $5. For those earning more than $5 a day the increase was merely nominal. In thus favoring the least skilled workers and in establishing a minimum wage of $4 a day, the arbitrators were guided by the board's principle that "minimum rates of pay shall be established which will insure the subsistence of the worker and his family in health and reasonable comfort." As in all other awards made by the board, it is here provided that these rates of pay may be readjusted at intervals of six months in conformity with the change in the cost of living.

The arbitrators also granted 50 per cent additional pay for the first two hours worked in excess of eight hours per day, and double pay for additional hours, as well as for Sundays and holidays. The plant during the war has been working on a seven-day basis.

The arbitrators refsed the request of the employees that their union be recognized and dealt with as such during war-time, but provided for the election of committees of the men to facilitate collective bargaining. The board thereby maintains the pre-war status of the plant in relation to unionism, while protecting the workers in their efforts to adjust complaints without undue friction, through chosen representatives. The right of the men to membership in their union is affirmed.

The administration of this award will be placed in the hands of a representative of the board, whose decision will in every case be binding, pending appeal.

C. M. Harvey, of El Paso, Texas, was in Washington recently. Mr. Harvey is part owner of Commerce Mining & Royalty Company, of Miomi, Okla.

EXPANSION OF WAR INDUSTRIES CALLS FOR BIG COAL TONNAGE

The demand for fuel, on the part of the war-making branches of the Government and the war industries is growing by leaps and bounds. Every increase in the war-making efficiency of the nation is forcing a corresponding increase in the fuel demand. Estimates of the coal consumption for the year, which were judged high in April, are now proving inadequate.

It becomes increasingly apparent that despite the phenomenal increase in the rate of production at the mines, despite the splendid effort of the mines and miners under pressure from the Fuel Administration, the strictest fuel economy must be enforced if the country is to escape a serious coal shortage next winter. Every means of coal conservation must be observed, and every wasteful and unnecessary use of coal must be eliminated.

Almost daily, applications are coming to the United States Fuel Administration from War Industries for allotments of coal in addition to those made at the beginning of the coal year. Some are from new plants authorized by the War Industries Board, not known to the Fuel Administration at the beginning of the year.

The requirements for these plants are in addition to the original allotments. Other demands are from plants already on the Preferred List of war industries, for increased allowances because of enlargements and extensions to original plants, made since the Fuel Administration compiled its estimates of consumption.

The increased demand for coal for the Navy reached almost one hundred percent in July. Whereas, three and a half million tons was allotted to the Navy in April, the requirements by the middle of July had reached a basis of six million tons. By the end of the calendar year 1919, it is estimated that approximately eight million tons will be required to cover these demands.

With the launching of new ships, the requirements of the Shipping Board have likewise grown beyond all expectation. When the annual allotment was made, at the first of April, ten million tons was assigned for the purposes of the Shipping Board. The actual requirements as demonstrated by experience, and as a result of the phenomenal results being achieved by the Shipping Board, now place the figure at thirteen million tons.

So also, coal for bunkering purposes, at first estimated at thirteen and a half million tons, has grown in demand until present calculations call for twenty-one million tons.

New industries, not in operation at the beginning of the coal year, are now running full tilt or are about to start. From these come demands for coal of consequential proportions. A few are here enumerated, some of which are new plants, or additions to existing plants, made necessary by the enormously increased demands for war manufacture. To mention some of these new demands:

Youngstown Sheet and Tube Co., additional requirements, 45,000 tons by-product coal per month;

Cambria Steel Company, 27,000 additional tons by-product coal per month;

The Edgewood Arsenal, 30,000 tons steam coal per month;

The Perryville, powder plant, 15,000 tons steam coal per month;

Worth Steel Company, 6,000 tons producer gas and steam coal per month;

These new requirements alone represent an annual consumption of nearly a million and a half tons.

Aside from the increased requirements here shown, originating from new or enlarged plants, many old plants, rated at the beginning of the coal year for marked increases of allowance over the consumption of 1917, are now demanding still more coal. Practically all the steel plants and furnaces are running on full time, twenty-four hours per day. There are no suspensions of operations save for repairs and overhauling of plants. In some instances the yearly coal requirements were underestimated. In many others, enlarged production, under increased efficiency has created a demand for additional coal. Invariably, increased steel production calls for increased coal production, demanding about five tons of coal for each ton of steel produced.

The source of supply for the particular new coal requirements cited, is within a limited coal area. The extra allowances and demands there made, call for coal from New River and Pocahontas low volatile fields of West Virginia; the low volatile fields of Pennsylvania and Maryland; and the high volatile fields of West Virginia, Pennsylvania and Kentucky. These fields produce the grades of coal especially needed for the war-work. And it is from these same fields—with the exception of Kentucky—that the enormous calls of New England and the Atlantic States for coal for war use, must be answered.

The fields named are working at top-notch speed when accorded full car supply. But, unfortunately, they are the fields where transportation service is most difficult to secure. Not only does the eastern manufacturing section rely entirely upon the fields named for their tremendous coal supply, but by-product plants everywhere, and gas plants, generally, derive their coal supply from this limited territory. The mines within this territory were, on July 27, more than fourteen million tons short of their scheduled output, estimated by the Fuel Administration as necessary to meet its fuel needs of the country.

The U. S. Fuel Administration faces the difficulty of meeting greatly increased demands for coal, not from the nation's big coal pile, but from a much smaller pile, representing the output within a small area. The war necessities must be cared for by coal from these fields and non-war industries will be given coal from them only after the war plants designated by the War Industries Board for preference are supplied.

Legislation Now Pending

Few bills of importance to the mining fraternity have been introduced in the House or Senate since The Mining Congress Journal for August went to press. The most important, the Henderson bill, attention to which was called in a recent editorial, was finally introduced.

The Henderson bill contemplates federal control in production, purchase, allocation, export and import of the principal metallurgical products, metals, alloys and chemical compounds as covered in the original Foster bill as amended and passed by the House earlier. The new bill does away with several features which were objected to in the House bill, such as the licensing feature. It is a combined bill meeting the suggestions of Senator Henderson and his colleagues on the Senate Committee on Mines and Mining, the bill proposed by Secretary Lane and Director Manning, and the ideas of President Wilson as to the power of control. It provides for the organization of a $50,000,000 purchasing corporation, to be organized under the direction of the President, and authorizes the President to requisition either products or mines which may not be working up to capacity. Authority granted under the proposed bill extends two years beyond the close of the present war, in order that the Federal Government can protect the nation in the matter of prices and can dispose of any accumulated stock of minerals or metals under profit-making conditions.

S. 4879, by Senator Borah—A bill to provide to defray war expenses and for other purposes through taxes assessed on gross sales, as follows: One cent on purchases from 5 cents to $99.99; 3 cents on sales from $100 to $499.99; 6 cents up to $999.99; 10 cents on the first $1,000 and 5 cents on each additional $1,000 on transactions ranging up to $10,000; 25 cents on the first $1,000 and 4 cents on each additional $1,000 in transactions up to $50,000; $1 on the first $1,000 and 3 cents on each additional $1,000 on transactions of $50,000 or more. The bill provides certain exemptions for public and charity organizations, soldiers, etc., and provides for the use of stamps and the affixing of the same. Duplicated by H. R. 12774, by Mr. Smith of Idaho.

H. J. Res. 318, by Mr. Raker—Authorizing further suspension of annual assessment work on mining claims until midnight, December 31, of the year in which the war is concluded. This resolution has been reported favorably, and will probably meet no opposition.

H. R. 12767, by Mr. Keating—A bill prohibiting child labor. Provides that no child under 14 years shall be employed and no child between the ages of 14 and 16 shall be employed more than eight hours a day or more than six days weekly.

ALLIED PETROLEUM EXPERTS CONFER IN WASHINGTON

The Specifications Commission of the Inter-Allied Petroleum Conference in London is in Washington for the purpose of discussing the standardization of specifications for petroleum products with the committee recently appointed by presidential proclamation. The Specifications Commission from London is composed of the following members: W. Fraser, chairman; H. R. J. Conacher, secretary; Engineer Commander A. E. Hyne, Royal Navy; Capt. W. E. Guttentag, British Air Ministry; Capt. E. C. Paix, French Army; Capt. L. Noyer, French Army, and Major Galileo, Italian Navy.

A. C. Woodman and W. A. Williams have been nominated as alternates to represent the American Government in the absence of Chester Naramore and W. E. Perdew, who are now in Europe.

The above named commission is meeting in conference with the American Committee on Standardization of Petroleum Products, composed of the following members: M. L. Requa, general director, Oil Division, United States Fuel Administration, chairman; J. W. Williams, secretary; Col. George E. Warren, appointed by the Secretary of War; Admiral R. S. Griffin, appointed by the Secretary of the Navy; H. L. Doherty, appointed by the chairman of the Shipping Board; C. B. Young, appointed by the Director General of Railroads; C. H. Beal, appointed by the Director of the Bureau of Mines, and Dr. C. W. Waidner, appointed by the Director of the Bureau of Standards.

Sheet Zinc Price Fixed

The fact that in the past three months the cost of producing zinc has increased 10 per cent led the producers of sheet and plate zinc to request the Price Fixing Committee of the War Industries Board not to fix a permanent price on that commodity and not to extend the present price of fourteen cents for plate and fifteen cents for sheet zinc beyond January 1. The Committee granted the request and announced that the above named figure would stand for the closing months of the year, the producers to be given an opportunity to present arguments before a new price is considered. The conditions imposed under previous agreements prevent reduction of wages and fix the price alike to government, allies and private purchasers and these stipulations were continued in force by the Price Fixing Committee.

RIGHT OF WORKERS TO ORGANIZE UPHELD BY WAR LABOR BOARD

The National War Labor Board rendered the following as its award in the controversy between the Smith & Wesson Company, arms manufacturers, and their employes at Springfield, Mass.:

INDIVIDUAL CONTRACTS

"The practice of the company in times past to take restrictive personal contracts, even if lawful when made, such as were shown to the Section, is contrary to the principles of the National War Labor Board, and the practice of taking such contracts should be discontinued for the period of the war.

DISCRIMINATION

"Relative to the charges of discrimination against employes for joining labor unions, and to the discharge of certain employes as shown in the record, the fundamental principles upon which the National War Labor Board is founded, under the proclamation of the President of date April 8, 1918, are conclusive as to these points and admit of no misinterpretation. They are:

"The right of workers to organize in trade unions and to bargain collectively through chosen representatives is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the employers in any manner whatsoever.

"The right of employers to organize in associations or groups and to bargain collectively through chosen representatives is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the workers in any manner whatsoever.

"Employers should not discharge workers for membership in trade unions, nor for legitimate trade-union activities.

"The workers, in the exercise of their right to organize, shall not use coercive measures of any kind to induce persons to join their organizations nor to induce employers to bargain or deal therewith.

"In accordance with said principles we recommend that said employes be restored to their former positions and paid for all time lost by them on account of their discharge.

COLLECTIVE BARGAINING

"Under the principles quoted in the preceding paragraph, the workers have the right to 'bargain collectively through chosen representatives.' In accordance with these principles we recommend the following:

"The election by the workers of their representative department committees to present grievances and mediate with the company shall be held, during the life of this award, in some convenient public building in the neighborhood of the plant, to be selected by the examiner of this board assigned to supervise the execution of this award, or, in case of his absence, by some impartial person, a resident of Springfield, Mass., to be selected by such examiner. Such examiner, or his substitute, shall preside over the first and all subsequent elections during the life of this award, and have the power to make the proper regulations to secure absolute fairness.

"In the elections the examiner shall provide, however practicable, for the minority representation by limiting the right of each voter to a vote for less than the total number of the committee to be selected. Elections shall be held annually.

"The duties of the Department Committees shall be confined to the adjustment of disputes which the shop foreman and the division superintendents and employes have been unable to adjust.

"The Department Committees shall meet annually and shall elect from among their number three (3) employes who shall be known as the committee on appeals. This committee shall meet with the management for the purpose of adjusting disputes which the Department Committees have failed to adjust.

WAGES AND WORKING CONDITIONS

"We recommend that all matters in dispute as to wages and other conditions of employment be adjusted by the committees herein provided for, and in case of disagreement that reference be made to this board.

INTERPRETATION OF AWARD

"For the purpose of securing a proper interpretation of the award, the secretary of the National War Labor Board shall appoint an examiner, who shall hear any differences arising in respect to this award between the parties and promptly render his decision, from which an appeal may be taken by either party to the section making this award. Pending such appeal the decision of the examiner is to be binding.

F. N. Judson,
Frank P. Walsh,
Joint Chairmen.

W. Jett Lauck,
Secretary.

The above award prepared by Frank P. Walsh, Joint Chairman of the Board, and Frederick N. Judson, of St. Louis, alternate for Joint Chairman William Howard Taft, acting as a section of the board in charge of the case.

In commenting upon the award, Joint Chairman Walsh said:

"This is one of the most important cases yet decided by the board. The company claimed the right to make individual contracts with the men, which was intended to prevent employes from thereafter joining labor unions under the right guaranteed to them by the very first principle of the War Labor Board. This was a flagrant violation of one of the principles of the board, viz.: that contracts of this restrictive character should be waived by all employers for the period of the war.

"This finding, of course, does not in any way affect the legality of such contracts in ordinary times.

"In this case the company further sought to deny to its employes any form of collective bargaining. The machinery is provided in the award for a complete system of collective bargaining through committees appointed by the company to meet with similar committees democratically selected by the employes of the plant.

"In order that uniformity in the industries of the nation may be had, and to prevent charges of coercion or other improper conduct upon either side, the award provides that the committtees shall be selected under the direction of a representative of the National War Labor Board and that the election shall be held in a public building at Springfield, Mass.

"The board did not take up the specific grievances of the Smith & Wesson employes as to wages and conditions of employment, which were held to be onerous and exhausting, for the reason that such matters can best be adjusted by the employes and the management through the committees provided for in the award. Of course, if this cannot readily be done, summary appeals to the board for speedy adjustments are provided."

IN SPITE OF CAR SHORTAGE INDIANA COUNTY SETS RECORD

That railroad car shortage remains a disturbing element in some coal production fields where strenuous efforts are being made for patriotically increased production is evidenced by reports of district representatives to the Production Bureau of the United States Fuel Administration.

In Indiana especially they have taken the call of the Fuel Administration to heart and the mine workers are earnestly striving by working full hours and on all working days to break records for production. The eight mines of the Knox County, Indiana, Coal Operators' Association produced 323,887 tons of coal during July. The largest month's record previous to this reached only 293,499 tons. The notable thing about this new production record is that it was accomplished in the face of the fact that this particular field lost 350 hours, or more than 21 per cent, on account of car shortage.

SUNDAY ORDER IS SAVING LARGE AMOUNT OF GASOLINE

The United States Fuel Administration considers it necessary that a limited conservation of gasoline be undertaken in the states east of the Mississippi, River, in view of the increasing demand for gasoline for war purposes and the paramount obligation of meeting promptly and fully all overseas requirements.

An appeal has been made to the people of the United States east of the Mississippi River to exercise rigid economy in the consumption of gasoline for a few weeks as a necessary and practical act of patriotism.

War necessities are being and will continue to be promptly and fully met, but this is the period of the year when consumption of gasoline is at its highest, and the increased domestic demands, together with the extensive military operations in France, have rendered necessary for a limited period the adoption of safeguards against possible shortage.

In view of the difficulty, if not the impossibility, of differentiating between the various uses to which automobiles are applied, the United States Fuel Administration believes that the greatest measure of economy can be effected with the least interference with the business of the country through the discontinuance of the use of all classes of motor vehicles, motor boats and motorcycles on Sundays.

The United States Fuel Administration therefore requested that in the section of the United States east of the Mississippi River there shall be a discontinuance of use of the vehicles above specified, including all such as are operated for hire, on each Sunday until notification that the need for such discontinuance has ceased.

The following exceptions were made:

1. Tractors and motor trucks employed in actual transportation of freight.
2. Vehicles of physicians used in performance of professional duties.
3. Ambulances, fire apparatus, police patrol wagons, undertakers' wagons, and conveyances used for funerals.
4. Railway equipment using gasoline.
5. Repair outfits employed by telephone and public service companies.
6. Motor vehicles on errands of necessity in rural communities where transportation by steam or electricity is not available.

In addition to the above, appeal is made to the patriotic men and women of America east of the Mississippi River to undertake, voluntarily, additional conservation in the operating of their own automobiles wherever possible.

The United States Fuel Administration believes that all consumers of gasoline will observe the spirit of this request. In that event, no mandatory order governing the use of gasoline will be necessary.

The request made by the Fuel Administration was not intended to prohibit reasonable use of gasoline driven vehicles as a means of necessary transportation where no other means are available.

Mr. Garfield believes that the public will construe the request wisely and intelligently, and will not use their automobiles for other than the most necessary purposes.

The intention of the request is that all mere pleasure riding be eliminated, but that necessary use of the automobile be not interfered with.

Just what is "pleasure riding" and what is "necessary use" must be determined by the individual, keeping in mind always that we must have additional reserves of gasoline, so that there may be no possibility of delays in overseas shipments.

The United States Fuel Administration will not attempt to tabulate automobile traffic.

In response to queries as to what amount in saving of gasoline might be expected as a result of the United States Fuel Administration's request that the use of automobiles be restricted on Sundays, M. L. Requa, director of the Oil Division, says:

"The request for this conservation applies only to the territory east of the Mississippi River. In this territory there are 4,000,000 motor-driven vehicles, of which approximately 200,000 are trucks. It is fair to assume that the remaining 3,800,000 motor vehicles, if run on Sundays, would each use 2 gallons of gasoline; so that the saving to be effected, if every motor user patriotically complies with the Fuel Administration's request, would be about 7,600,000 gallons. This would be in addition to the saving effected by the non-use of motor boats; and in this connection it might be well to state that the conservation request has no application to those motor fishing boats plying at a necessary trade.

"Motorists are requested to initiate every means of conservation possible in the handling and use of gasoline and lubricating oils. The useless operation of engines when the car is not in motion must be discontinued. Extreme care must be exercised that gasoline and oil is not spilled, that leaks are not tolerated, and evaporation not permitted. The gasoline and lubricating oil user must realize that there is not an inexhaustible supply of crude oil, and he must appreciate the fact that the need for it now exceeds that of any previous time.

"War needs must be first supplied. By conserving through the non-use of motor-driven vehicles for a few Sundays and the exercise of care in the use of gasoline and oil during other days, there probably will be no necessity for more severe control.

"If this program is followed to the extent that the Fuel Administration believes it will be, a few Sundays will effect the desired conservation."

URGES STIMULATION OF WORK ON POTASH RECOVERY

"According to the figures given out by the U. S. Geological Survey, the production of potash for the first half of this year was between 20,000 and 25,000 tons of K_2O, and it is estimated that the total for the year will reach 60,000 tons. This is about 25 per cent of our pre-war importations, and if this country is to become independent of Germany, immediate steps should be taken to further develop our own sources of supply," says a well known potash authority. "The cement works and blast furnaces alone should be able to supply our total requirements," he continued, "but so far these industries have done very little. By the end of 1918 about a dozen cement companies will be recovering potash as a byproduct, and incidentally abating the dust nuisance. The blast furnaces are doing practically nothing, although it is generally recognized that they would benefit considerably by obtaining cleaner gas for the stoves and gas engines. The manufacturers can hardly be blamed for not putting money in the necessary additions to their plants under the present uncertainty of the whole potash question. Although the present prices are high, no one knows how long they will last, and under the proposed revenue bill most of the profits would be taken by the Government as taxes. The manufacturers would not object to this if they were allowed to amortise the cost of plant before being subject to any profits tax. The producers of potash should also be given definite assurance by the Government that there will be no 'dumping' of German potash after the war.

"A source which it seems to us should be thoroughly investigated is the potash-bearing silicate rocks. There are large deposits of these running fairly high in potash, notably the green sands of New Jersey, the leucite deposits of Wyoming, and the sericites and potash-bearing states of Georgia. Although no commercially successful method of extracting potash from silicate in general has as yet been developed, this problem should not be beyond the skill of American chemists and metallurgists. Congress granted an appropriation of $175,000 in 1916 to the Department of Agriculture for an experimental plant for treating kelp, and it seems to us that the silicates offer an even more promising source of potash. We think it would be a very good idea if a similar appropriation were made to the Bureau of Mines for carrying out experiments on these silicates, as, if a successful process for extracting the potash can be developed, the supply of raw material is practically unlimited."

PRODUCTION MANAGERS NAMED IN TWENTY EIGHT DISTRICTS

The United States Fuel Administration through James B. Neale, Director of Production, announces the completion of a list of twenty-eight production managers appointed, one in each local producing district.

Each production manager will have charge of the campaign for increased production in his own district and to him the Production Committees, which are being formed at the great majority of the soft coal mines throughout the United States, will report.

Each Production Committee will consist of six members, three to represent the mine management and three to represent the mine workers. Thus both parties in interest will be represented. In case a mine has failed to produce the maximum tonnage, it will be up to the Production Committee to learn the cause or causes of the failure and to place the blame where it belongs, either with the mine management or with the men, and thus point out the way for improvement.

Whenever blame is placed, it will doubtless be accepted in good part as it will have been placed by a committee on which both parties are represented. Each week the Production Committee will post a list showing the names of the men who have been absent, or who have worked short hours, or who have loaded less than a fair amount of coal and the reasons will be given, setting forth clearly, whether in each particular case, the blame lies with the company or with the worker.

The production managers and the fields over which they will exercise authority are:

Charles O'Neill, Central Pennsylvania; F. B. Reiman, Western Pennsylvania, north of Pittsburgh; R. W. Gardiner, Pittsburgh and Panhandle District; James S. Amend, Westmoreland, Irwin Gas Ligonier, Latrobe and Greensburg; W. L. Byers, Connellsvile region.

Howard P. Brydon, Cumberland, Piedmont and Upper Potomac, Md., and W. Va.; F. M. Lockhart, Somerset-Myersdale; J. J. Roby, Eastern and Central Ohio; William H. Wallace, Michigan; James H. Pritchard, Southern Ohio; H. F. Price, Big Sandy and Elkhorn; A. L. Allais, Hazard.

J. W. Dawson, high volatile fields of southern W. Va.; E. E. White, New River and Winding Gulf; R. D. Patterson, Tug River and Pocahontas field; G. D. Kilgore, Clinch Valley and Southwestern Va.

Howell J. Davis, Harlan field in Kentucky, Tennessee and Georgia; Judge H. C. Selheimer, Alabama; W. G. Duncan, Western Kentucky; W. J. Freeman, Indiana; F. C. Honnold, Illinois.

Ira Clemens, Iowa, Missouri, Kansas, Arkansas, Oklahoma and Texas; A. K. Craig, Montana and northern Wyoming; Thomas Sneddon, Utah and southern Wyoming; J. F. Welhorn, Colorado; George T. Brown, New Mexico; Brooks Fleming, Fairmount-Clarksburg and D. C. Botting, State of Washington.

NO CHANGE IN ALUMINUM PRICE FOR NEXT QUARTER

The President has approved an agreement made between the producers of Aluminum and the Price-Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the maximum base price for aluminum of thirty-three cents per pound f.o.b. United States producing plants, for fifty tons and over, of ingot of 98 to 99 per cent, be continued until March 1, 1919. Differentials for sheet, rod and wire and differentials for quantity, for grade and for alloys will remain those approved by the Price-Fixing Committee of the War Industries Board as effective from June 1, 1918. Copies of the price list including differentials may be obtained upon application to the Non-Ferrous Metals section of the War Industries Board.

These prices will be effective on deliveries made during the period from September 1, 1918, to March 1, 1919, on contracts made during said period; and furthermore, the new prices will be effective on deliveries made during said period on existing contracts which specify that the price shall be that in force at the time of delivery. Deliveries made during the period of September 1, 1918, to March 1, 1919, on other contracts shall be at the price stated in such contracts, except that on existing "direct and indirect government contracts" containing a provision that refund is to be made of the difference between the price stated in the contract and the "government fixed price, if, as and when made, such difference shall be refunded on deliveries made during the period from September 1, 1918, to March 1, 1919, on presentation of proper proof that the purchasing government gets the benefit of the refund."

The conditions are as formerly: First, the producers of aluminum will not reduce the wages now being paid; second, aluminum shall be sold to the United States Government, to the public in the United States, and to the allied governments at the same maximum base price; third, they will take the necessary measures, under the direction of the War Industries Board in the distribution of aluminum to prevent it from falling into the hands of speculators who might increase the price to the public; and fourth, they will pledge themselves to exert every effort necessary to keep up the production of aluminum so as to insure an adequate supply so long as the war lasts.

MANY PRODUCTION MANAGERS REPORT EXCELLENT RESULTS

Recent reports from the production managers appointed by the United States Fuel Administration show that various plans inaugurated by them are highly successful in stimulating production and are interesting labor in the mine fields with the importance of their task.

The Clearfield Bituminous Coal Corporation in the thin vein district of central Pennsylvania, Charles O'Neill, production manager, has kept records of results accomplished largely through production committees since May of this year. In May the percentage of absentees from work in the mines was 20.8, in June it was 12.5, and in July 9.3 per cent. The tonnage produced per day, per man, under the stimulus of the production committee was: May, 4.8; June, 5.4, and July, 5.6 tons.

W. H. Wallace, production manager for Michigan, reports production for the week of August 10 as 35,242 tons, the largest production since April 1 of this year.

From Alabama, Production Manager Judge Selheimer reports production for the week ending August 10 as 427,718 tons, an increase of 10,256 tons over the week ending August 3 and an increase of 64,566 tons over the week ending July 6, which was the week preceding the inauguration of their present system of work to increase production. This increase in Alabama was made in the face of the fact that the mines lost 820 operating hours on account of car shortage.

Ira Clemens, production manager at Pittsburg, Kans., is trying out a plan of having wagon mines pool their tonnage so that two or three may load into one car, thus reducing the amount of equipment needed and securing the loading of cars more promptly.

A suggestion by W. L. Byers, production manager of the Connellsville district, has been submitted through the Production Bureau of the Railroad Administration that a campaign be started to stimulate greater effort on the part of railroad employees handling coal traffic.

E. E. White, production manager of the New River district, has held meetings of superintendents, bosses and fire bosses in his district, urging speeding up in production. He reports that farmers in his district whose sons are in the Army went into the mines and loaded from 10 to 15 tons per man, simply as an expression of their patriotism. The churches in this district are holding special meetings, at which the importance of increased coal production is urged.

DIRECTOR NEALE MAKES NEW APPEAL TO MINE OPERATORS

That upon the mine operator as well as the mine worker lies the patriotic duty of doing everything possible to speed up the production of coal is the tenor of a letter sent by James B. Neale, director of production of the United States Fuel Administration, to all the coal operators of the country.

As the mine workers have been appealed to to work full time each day for six days a week Mr. Neale says to the coal operators:

"You must practice the highest degree of efficiency as to mine management, and must see to it that your employees are given fair and courteous treatment. As you well know, there are two important factors in the production of coal—one, the operator; the other, the mine worker. The latter is helpless to do his part, no matter how willing, if you do not provide him with the means with which to do it. Plenty of mine cars, good air, sufficient timber and other materials are a few of the things you must provide. There are many others, and you must exercise great care to see to it that you do not fail in your duties.

"It is true that each day throughout the country many thousands of tons of coal are not mined, due to absence, inefficiency and short hours worked by the mine employees; but it is equally true that each day many thousands of tons of coal are not mined due to the fact that the operators have not made it possible for the mine workers to do as much as they willing to and would do. Both effective factors must be determined to do better than ever before. I hope that a wholesome, friendly spirit of rivalry will quickly develop between the mine management and the mine workers, so that each group will try its best to see that it has not prevented a marked increase in tonnage, and that, on the other hand, it has contributed the major part of a large increase in tonnage."

PRESIDENT ISSUES PROCLAMATION TO COAL MINING INDUSTRY

The President has issued the following proclamation:

"To All Those Engaged in Coal Mining:

"The existing scarcity of coal is creating a grave danger—in fact the most serious which confronts us—and calls for prompt and vigorous action on the part of both operators and miners. Without an adequate supply our war program will be retarded, the effectiveness of our fighting forces in France will be lessened, the lives of our soldiers will be unnecessarily endangered and their hardships increased, and there will be much suffering in many homes throughout the country during the coming winter.

"I am well aware that your ranks have been seriously depleted by the draft, by voluntary enlistment, and by the demands of other essential industries. This handicap can be overcome, however, and sufficient coal can be mined in spite of it, if every one connected with the industry, from the highest official to the youngest boy, will give his best work each day for the full number of work hours. The operators must be zealous as never before to bring about the highest efficiency of management, to establish the best possible working conditions, and to accord fair treatment to everybody, so that the opportunity to work at his best may be accorded every workman. The miners should report for work every day, unless prevented by unavoidable causes, and should not only stay in the mines the full time, but also see to it that they get more coal than ever before. The other workers in and about the mines should work as regularly and faithfully so that the work of the miner may not be retarded in any way. This will be especially necessary from this time forward, for your numbers may be further lessened by the draft, which will induct into the army your fair share of those not essential to industry. Those who are drafted but who are essential will be given deferred classification, and it is their patriotic duty to accept it. And it is the patriotic duty of their friends and neighbors to hold them in high regard for doing so. The only worker who deserves the condemnation of his community is the one who fails to give his best in this crisis; not the one who accepts deferred classification and works regularly and diligently to increase the coal output. A great task is to be performed. The operators and their staffs alone cannot do it, nor can the mine workers alone do it; but both parties, working hand in hand with a grim determination to rid the country of its greatest obstacle to winning the war, can do it. It is with full confidence that I call upon you to assume the burden of producing an ample supply of coal. You will, I am sure, accept this burden and will successfully carry it through, and in so doing you will be performing a service just as worthy as service in the trenches, and will win the applause and gratitude of the whole nation.

"Woodrow Wilson.

"The White House, 9 August, 1918."

SULPHUR RESERVE AMPLE WHEN STORM DAMAGES LOUISIANA PLANT

Advices to the Chemicals Division of the War Industries Board are that mining operations have been resumed in part at the plant of the Union Sulphur Company, at Sulphur, La., where considerable damage was done by the hurricane that swept over that region on August 6. Shipments of sulphur were resumed last week from the accumulated stocks and rapid progress is being made in the work of restoring normal conditions. Considerable rebuilding will have to be done but ample material is on hand for the work.

The company carried immense reserves of sulphur above ground so that there will be no interruption in the manufacture of sulphuric acid and other necessary war materials. This reserve pile of the Union Sulphur Company measures 800 feet in length by 200 feet in width, 40 feet high, and represents about fifteen months' mining.

The plant of the Freeport Sulphur Company at Freeport, Texas, is producing its normal tonnage and has a considerable reserve above ground. While the damage to the Union Sulphur Company is unfortunate, especially at this time when sulphuric is being produced in such an enormous way, the reserve stock situation is such that there is no cause for worry. The Union Sulphur Company's operatives are working day and night in th rebuilding of their plant. The sulphur is melted in the ground by steam and hot water and forced to the surface through wells where the molten sulphur solidifies on exposure to the air. The sulphur deposit underlies a bed of quicksand through which it is impossible to drive shafts and mine in the ordinary way. The development of this project is one of the interesting mechanical and chemical achievements of the past decade and, together with the Freeport Company's developments, makes the United States by far the greatest producer of sulphur.

There are two other known deposits which can be quickly opened up in case of necessity. Work is now progressing on the development of one of these deposits.

Bulletins Nos. 241 and 243, compiled by the Jeffrey Manufacturing Company, which have just come from the press, are now ready for distribution.

Bulletin No. 241 features the 35-B, the latest type of Jeffrey shortwall coal cutter, a machine designed to meet the demand for a simple and rugged machine easily operated and controlled under all mine conditions.

Bulletin No. 243 features the Jeffrey A-5 electric rotary drill for drilling coal, slate, shale, rock, salt, clay, gypsum, soft rocks or other materials which can be penetrated with an auger bit.

In addition to a complete description of these machines and their distinctive features, the bulletins contain a number of interesting views showing them in actual operation in mines.

Users of coal mining machinery can obtain free copies of these bulletins by writing to the main office of the Jeffrey Manufacturing Company of Columbus, Ohio, or to any of their branch offices.

PERMITS TO OPEN NEW MINES GRANTED IN CERTAIN CASES

Each application is investigated by the Mine Track Committee, and their decision is governed by the following considerations: Quality of coal, production tonnage promised at an early date, labor supply available without interfering with other operations, diffusion of cars, and ability of railroads to handle the production.

Up to this time there have been 623 applications to open bituminous mines and 10 applications to open anthracite mines. Of this number 215 bituminous applications and 9 anthracite applications have been approved. Seventy-two bituminous applications have been rejected and one has been withdrawn. The Mine Track Committee has under consideration 1 anthracite and 335 bituminous requests.

So long as the railroads are experiencing difficulty in supplying cars and in moving the loads to their destination, and so long as labor for the mines is short, the advisability of extending coal development is held by the United States Fuel Administration in a doubtful light. Only when convinced that a new operation will surely increase production is consent given for a new opening.

DECLINE IN BITUMINOUS PRODUCTION IS CHECKED

Bituminous coal production for the week ended August 24 amounted to 12,603,000 net tons, including lignite and coal made into coke, which production exceeded the output during the corresponding week of 1917 by 1,852,000 net tons, or 17 per cent.

The estimates of production for the week by the United States Geological Survey indicate a signal recovery of output over the record of recent weeks. Compared with the record for the week of August 17, the increase amounts to 669,000 net tons, or 5.6 per cent.

The average production per working day during the week ended August 24 is estimated at 2,100,000 net tons, as against 1,989,000 net tons during the preceding week and 1,792,000 net tons during the corresponding week of 1917.

Anthracite production for the week is reported in net tons at 2,134,000, as against 1,924,000 net tons during the preceding week an increase of 10.9 per cent The production record for the week compares with 1,988,600 net tons during the corresponding week of 1917.

Shipments of bituminous coal during the week increased from all districts, with the exception of the district including northeast Kentucky, the high volatile and smokeless fields of West Virginia, and from the Rocky Mountain and Pacific Coast states. Increase of shipments in central Pennsylvania amounted to 8 per cent; Ohio, 11 per cent; the district including Illinois Indiana and western Kentucky, 5 per cent.

Bituminous coal loaded on vessels at Lake ports (including vessel fuel) during the week ended August 24 is estimated at 1,151,744 net tons, being an increase over the previous week of 3.8 per cent and over the weekly average during July and August of 11.8 per cent.

The increase of shipments to New England during the week is estimated at 10 per cent. Shipments were also increased from all harbors.

During the week of August 17 the bituminous mines produced 77.7 per cent of their present full-time output. Losses to production are distributed as follows: Car shortage, 12.4 per cent; labor shortage, including strikes, 4.1 per cent; mine disability, 4.2 per cent; no market, 0.5 per cent; all other causes, 1.1 per cent.

Poor transportation conditions caused increased losses of time by mines in Illinois, Somerset county, Pa.; New River and Winding Gulf and the high volatile districts of West Virginia and in northeast and western Kentucky. Improved operating conditions due to better supply of cars existed in western Pennsylvania Cumberland-Piedmont district, and in southwest Virginia. Better transportation conditions existed in southern Ohio, but such improvement was offset by shortage of labor.

Detroit Needs More Domestic Coal

A committee of industrial coal consumers for the city of Detroit has conferred with officials of the United States Fuel Administration. The Detroit representatives said that the supply of industrial fuel for Detroit was in excellent condition, but they sought additional assurances as to the supply of coal for domestic consumers.

The Detroit representatives took the position that their city must be guaranteed a satisfactory supply of coal for domestic consumption in order that the many war industries located at Detroit might not be embarrassed in maintaining a proper supply of labor The withdrawal of a part of Detroit's anthracite coal supply, made necessary by the increased demand for anthracite in the congested Eastern territory, left the city partially dependent upon domestic sizes of bituminous coal for household heating.

While the officials of the Fuel Administration were unable to increase the allotment of anthracite to Detroit, the Detroit representatives were assured that a satisfactory supply of domestic sizes of bituminous coal would be forthcoming.

The Detroit representatives were headed by State Fuel Administrator William K. Prudden. They were Mr. Henry M. Leland, Liberty Motor Company; Mr. J. J. Crowley, Crowley Bros. Co., president, Detroit Board Commerce; Mr. Henry Hoyt, vice-president, Great Lakes Engineering Company; Mr. W. I. Schultz, Packard Motor Company; Mr. J. E. Spencer, Studebaker Corporation; Mr. A. R. Demory, vice-president, Timken Detroit Axle Company; Mr. O. C. Hutchinson, Hupp Motor Corporation, and Mr E. J. DuBois, Detroit Board of Commerce.

PRICES ON SHEET AND PLATE ZINC CONTINUED TO JAN. 1

The President has approved an agreement made between the producers of sheet and plate zinc and the Price Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the maximum base price of fourteen cents per pound f.o.b. plant for plate zinc, and fifteen cents per pound f.o.b. plant for sheet zinc, shall be continued on deliveries from September 1, 1918, to January 1, 1919, subject to the usual trade discounts and extras or differentials that were in effect February 13, 1918. These discounts and extras shall be effective on all contracts executed between February 13, 1918, to January 1, 1919. Sheet zinc shall be considered as including all gauges of one-eight inch thickness and less and plate zinc as including all gauges thicker.

The conditions are, as formerly: First, that the producers of plate and sheet zinc will not reduce the wages now being paid; second, they will sell to the Allies, to the public, and to the Government at the same price; third, that they will take the necessary measures, under the direction of the War Industries Board, in the distribution of plate and sheet zinc to prevent it from falling into the hands of speculators who might increase the price to the public; and fourth, that they pledge themselves to exert every effort necessary to keep up the production of plate and sheet zinc so as to insure an adequate supply as long as the war lasts.

Grade A Price

The President has approved an agreement, made between the producers of Grade A zinc and the Price-Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the maximum price on Grade A zinc of twelve cents per pound f.o.b East St. Louis shall be continued on deliveries between September 1, 1918, and January 1, 1919. The price at point of delivery is to be the East St. Louis price plus the freight from East St. Louis to point of delivery.

Among the zinc men who attended the recent meeting of the Price Fixing Committee of the War Industries Board in Washington were Messrs. P. B. Butler, of the Waco Mining Co.; C. F. Dike, of the Montreal mine; H. I. Young, of the American Zinc, Lead and Smelting Co.; D. C. Corner, of the Butte-Kansas Mining Co., and J. W. Hoffman, of the Blue Mound Mining Co., all enthusiastic members of The American Mining Congress and operating in the Joplin-Miami district. In addition to the price-fixing meeting these gentlemen met with Judge A. Scott Thompson, chairman of the Mining Congress committee on tax legislation in the offices of the Mining Congress to discuss developments and consider the proposals of Secretary McAdoo to Chairman Kitchen in so far as they affected the zinc industry.

SCREENINGS SITUATION IN MIDDLE WEST RELIEVED

To provide a market for slack and screenings west of the Mississippi River, and to encourage the production of domestic sizes of coal at mines now hampered by large stocks of screenings, the Fuel Administration has temporarily lifted industrial restriction orders against plants in the west. Under the order plants, except breweries heretofore operating under curtailment orders located west of the Mississippi River, will be permitted until September 8, 1918, to take all of the screenings they can use or store. They will be permitted to use screenings thus stored without restriction throughout the year.

The order is designed to relieve the screenings situation in the middle Western and Western States. At the mines in Iowa, Kansas, Missouri, Oklahoma, Colorado and Wyoming screenings have been accumulating rapidly until production has been interfered with. The large percentage of screenings produced in securing domestic sizes of coal from these fields makes it imperative that the screenings be marketed if the output of domestic sizes is to be kept up.

In addition to lifting the ban on the use of screenings from mines supplying consuming territory west of the Mississippi in restricted industries, efforts will be made to increase the use of screenings in all industries.

Coal Delivered on Tenders

Compensation is allowed mines for the service of furnishing fuel direct to the tenders of locomotives, under an order of the United States Fuel Administration.

Under the order there may be added to the applicable government mine price of coal delivered directly from mine tipples to locomotive tenders the sum of five cents per net ton, or such other sum as may be agreed upon between the operator and the railroad receiving the coal.

In case of failure to agree upon price the operator shall furnish such coal at the applicable government mine price, plus such additional sum in excess of five cents per ton as may be fixed by the Bureau of Prices of the U. S. Fuel Administration upon application of either the operator or the railroad.

ENGINEERING EDUCATION MUST GO ON, SAYS COMMITTEE

Closely in line with the War Department's recommendations to make the draft ages 18 to 45, with provision for training of the younger men, is the report of Secretary Lane's special committee on higher education and industry, just made public, wherein the nation's need for technically trained men is defined and a specific higher education program urged.

The committee, which consisted of Fuller E. Callaway, a financier, of La Grange, Ga.; Samuel M. Felton, director-general of military railways for the War Department, and President E. A. Alderman, of the University of Virginia, seeks to show how essential it is if the Government's far-reaching military plans are to be carried out successfully, that the processes of higher education be maintained at the highest possible efficiency—especially those having to do with the future supply of men and women trained in scientific and technical subjects, including teachers in these fields.

That it is impossible to exaggerate the importance of engineering knowledge and skill, in the broadest sense, is the judgment of Secretary Lane's committee, not only directly in the conduct of military operations but indirectly in the essential war industries, including agriculture. The report says:

"The engineering problems confronting the United States are infinitely greater than those of any other of the great nations. For an average distance of more than 4,500 miles, across the continents and the seas, we must transport all of the men, munitions and supplies which are to represent us in this great struggle.

"Furthermore, the central powers prepared themselves for this conflict over a long period of years, and by this means determined its character to their own advantage in large measure. The loss by our allies of men of highly specialized training in the early stages of the war and the difficulties in the way of recovery, leave this nation in the position of trustee of the only remaining sources of supply."

Pointing out how the War Department has already taken steps, through the establishment of the Student Army Training Corps, to utilize the higher educational institutions in training young men under 21, Secretary Lane's committee makes the following recommendations:

"The people of the United States should recognize that the maintenance of the war strength of the nation in its full power demands the utmost efforts of all existing well organized and adequately equipped colleges, universities and technical schools. This means ever-increasing and more devoted bodies of students as well as faculties.

"Young people having the requisite qualifications should heed this urgent call of their country and apply themselves diligently, enthusiastically and in increasing numbers to the task of preparing for the highest service of which they are capable. Wherever practicable, young men should at the same time join the Students' Enlisted Reserve and prepare for military service in order to be ready for that call also when it comes.

"Institutions of higher education should adjust their courses, so far as possible, to immediate war needs and to the demands which must inevitably come with the establishment of peace, and should develop especially those scientific and practicable branches of study which are essential to the winning of the war, to the development of our industries and commerce, and to the accomplishment of the tasks of the civic and political life of the nation.

"Educational institutions should use every effort to make the opportunities and privileges of training for public service accessible to all suitably prepared men and women of college age. In the cases of many worthy young men and women this will require some provision for assistance in meeting payments for tuition and laboratory fees and other necessary expenses of higher technical training."

WORK STOPPED ON POWER PLANT AT MUSCLE SHOALS

The Ordnance Department anounces that the temporary suspension of work on the water power development at the Muscle Shoals nitrate plants will not in any way affect the production of nitrates at these or any of the other plants now engaged in its production.

This action was taken upon the representation of the War Industries Board and affects only the erection of the huge water power plant being built on the Tennessee River, power from which was not anticipated for four or five years. The water power development was undertaken by the War Department in line with its established policy of utilizing these nitrate plants for the benefit of agriculture after the war is over, when the water power plant would be available.

Work is progressing rapidly on the Muscle Shoals plants, one of which is about 60 per cent complete, and over 20,000 men are now employed there. Power for their operation is obtained from a steam electric station erected on the Tennessee River, and also purchased from the Alabama Power Company. This power is adequate for the operation of the nitrate plants. The water power development was projected merely to obtain cheaper power in future years.

FUEL ADMINISTRATION WORKING HARD TO INCREASE PRODUCTION

Evans Woolen, Acting Director of the Bureau of State Organizations of the United States Fuel Administration and Federal Fuel Administrator for Indiana, addressing the conference of County Fuel Chairmen for New York State, said in part:

"We fuel administrators have to do with what the President recently spoke of as "a grave danger." Indeed, he went on to say of the existing scarcity of coal that it is the most serious danger which confronts the nation.

"In the presence of that fact we cannot meet otherwise than sober mindedly and in all humility. Yet we are stirred and are grateful, are we not, that to us has been entrusted what concerns the lives of our soldiers and the welfare of our neighbors.

"To you who, I doubt not, have gathered in such mood I bring greeting from those who labor in such mood at the Capital.

"They more than you have to do with the fundamental of our problem-production. They are not unmindful of the criticism that the Fuel Administration does everything about coal except to get more coal. Neither are they unaware that the coal in the ground is unlimited and that all the Fuel Administration' difficulties would be overcome by sufficiently increased production. Be assured that Washington is at work on production. A committee, skilled in mining and devoted in patriotism, is working on the problem with imagination and initiative and vigor. However, the members of that committee, better perhaps than some of the Fuel Administration's critics, know the limitations. They know that our national activities in this time of crisis are limited not by money or credit, but by labor and material and transportatton. We were asked the other day why the miners do not work in three eight-hour shifts. The answer of course was that the country has neither the miners to fill the shifts nor the equipment for the transportation of their product. Drafted miners who are essential are being given deferred classification and are being urged against their inclinations to accept it as a patriotic duty. At the mines production committees have been organized. Representatives of the management and of the workers cooperate on these committees in removing obstacles and stimulating zeal. The Railroad Administration is making its contribution to production by doing, I doubt not, everything that can reasonably be done to enlarge transportation equipment and facilities.

"In a word, production is being increased and unprecedentedly. The increase was fifty million tons of bituminous last year and will be, we hope, at least fifty millions more this year. Further, this is the only country that has increased its production since entering the war.

"But notwithstanding whatsoever increase is within the possibilities no assurance can be given against a serious coal shortage. The reason of course is that the war-made demand keeps bounding on beyond reach. Let me give a single instance. The allotment to the Navy at the beginning of the coal year was three and a half million tons. It is now estimated that the requirement for the year will be eight millions. Having in mind a multitude of such instances we do not hesitate in the assertion that the Fuel Administration's problem as of April 1, the beginning of the coal year, has been solved. It is the problem caused since April 1 by the enlarging war program that has not been solved.

"In view of this enlarging program and consequent fuel problem, there is necessity for a modification of the Fuel Administration's policy in the matter of storage. We are, as you know, well informed about storage by the reports we now have weekly from nearly one hundred thousand industries, utilities and retailers. From these reports it is evident that storage by non-preferred consumers must be checked. The Administration's policy as modified under existing conditions is based on the assumption that the hazards of winter delivery should be borne by the non-preferred consumers. Accordingly, it is being provided that coal in demand for winter storage by preferred consumers shall not be available for such storage by non-preferred consumers. You will find yourselves much engaged during the ensuing weeks in carrying out that policy.

"In conclusion permit me to remind you, as to the seriousness of our responsibility, that in dealing with coal, we are dealing with that which Lloyd George has said 'is the most terrible of enemies and the most potent of friends,' 'life for us and death for our foes.'"

Reports Great Saving of Coal

A convincing demonstration of the actual results which can be obtained by following the principles laid down by the United States Fuel Administration for the economic use of coal in industry has been reported from the Syracuse, N. Y., plant of the Solvay Process Company.

It has been demonstrated that a saving of 10,000 tons of bituminous coal can be effected in the main boiler house of this plant within the next six months, despite the fact that an improvement in efficiency of from 72 to 85 per cent was realized in this plant a short time prior to the last inspection. It is also reported that a further saving, aggregating 15,000 tons per annum, can be accomplished by the alteration or limiting of auxiliary equipment.

The estimated economy thus effected would means the releasing of 700 50-ton cars for other uses. The coal saved annually would give 3,500 families 10 tons each.

CLARENCE HALL HEADS BUREAU OF MINES EXPLOSIVES DIVISION

An explosives division has been created in the Bureau of Mines. Clarence Hall has been made its chief. A biographical review of Mr. Hall follows:

Born April 10, 1875. Graded schools and High school, Washington, D. C.; technical education at Columbian University, specializing in chemistry and explosives, graduating in 1895. Chemist to the Aetna Powder Company, Chicago, Ill., 1895 to 1901. Instructor in metallurgical chemistry, Columbian University, 1901 to 1902; member of the firm Munroe, Hall and Hopkins, Chemists, Assayers and Engineers, 1903 to 1907. Explosives engineer, Technologic Branch, U. S. Geological Survey, January 1, 1907, to July 1, 1910. Engineer in charge, Explosives Section U. S. Bureau of Mines, July 1, 1910, to January 1, 1914. Since January 1, 1914, president National Chemical Manufacturing Co., Pittsburgh, Pa.

1907: Visited the foreign explosives testing stations, and secured plans and specifications of the British testing station, Woolwich, England, and the Belgium testing station, Framerie, Belgium, January 1 to April 1, 1907.

Investigated the coal mining districts of Pennsylvania, Virginia, West Virginia, Illinois, Indian Territory, and New Mexico, April 1, 1907, to December 31, 1907.

Investigated the following coal mine disasters: Whipple, W. Va., May 1, 1907; Johnson Mine, Scranton, Pa., June 18, 1907; Naomi, Pa., December 1, 1907; Mononogah, West Va., December 6, 1907; Darr Mine, Darr, Pa., December 19, 1907.

Commenced inspections and tests of all purchases of explosives for the Isthmian Canal Commission, August 1, 1907.

1908: Investigated coal mine disaster, Hawks Nest, W. Va., January 30, 1908.

Supervised construction of galleries and apparatus at Pittsburgh, Pa., for the U. S. Bureau of Mines Experiment Station.

Commenced active testing of explosives, September 1, 1908.

Investigated the coal mine disaster, Mariana, Pa., November 28, 1908.

1909 to 1914: General Supervision of the testing of explosives at the U. S. Bureau of Mines Experiment Station and in the field.

Investigated the coal mine disaster, Ernest, Pa., February 5, 1910.

Investigated quarry disaster, Nazareth, Pa., February 5, 1910.

Investigated quarry disaster, Belwood, Ill., December 10, 1912.

Investigated explosion, 600,000 pounds dynamite on the S. S. Alum Chine, anchored in the Patapsco River, Baltimore, Md., March 7, 1913.

Investigated explosion of dynamite factory, New Castle, Pa., March 17, 1913.

PUBLICATIONS AND PAPERS

"Proposed Governmental Tests of Explosives for use in Coal Mines." A paper read at the summer meeting of the Coal Mining Institute of America, June 11, 1907, Pittsburgh, Pa. Published in the Procedings of this Institute 1907, in "Mines and Minerals," November, 1907, and "Enginering and Mining Journal," June 22, 1907.

"Statistics Relating to Mine Accidents." A paper read at the winter meeting of the Coal Mining Institute of America, December 10, 1907, Pittsburgh, Pa. Published in the Proceedings of this Institute, 1907.

Bulletin No. 333, United States Geological Survey, "Coal Mine Accidents." Their Causes and Prevention." December, 1907.

"Waste of Life in American Coal Mines." Published in "Engineering Magazine," February, 1908.

"Governmental Investigations of Mine Accidents." A paper read at the first meeting of the Mine Inspectors Institute of the United States of America, June, 1908, Indianapolis, Indiana. Published in the Proceedings of this Institute, 1908.

"The Equipment of the United States Explosives Testing Station and Preliminary Results of Tests." A paper read at the summer meeting of the West Virginia Coal Mining Institute, June, 1909, Elkins, W. Va. Published in the Proceedings of this Institute, 1909, and "Fuel," July, 1909.

Bulletin 413, United States Geological Survey, "A Primer on Explosives for Coal Miners." December, 1909.

"Decomposition Products of Moving Picture Film." Published in the Nickelodion," February, 1910, and "Insurance Engineering," March, 1910.

"Preliminary Results of Tests with Explosives in the Field." A paper read in the annual meeting of the Mine Inspectors Institute of the United States of America, June, 1910, Chicago, Illinois. Published in the Proceedings of this Institute, 1910.

Miner's Circular No. 2, U. S. Bureau of Mines. "Permissible Explosives Tested Prior to January 1, 1911, and precautions to be taken in their use."

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BONUSES TO WORKMEN ARE DENOUNCED BY GARFIELD

Speaking to the officers and district representatives of the United Mine Workers, U. S. Fuel Administrator Garfield said, concerning the proposal that wages be raised at this time to meet the bonuses paid by the operators:

"Bonuses are an evil and must be stopped. I am already acting upon that question. Concerning wages, the Government is at present investigating the cost of living and wage conditions throughout the country. This will include, of course, conditions in the mining fields. I shall do all in my power to see that the commission investigating that subject is put in full possession of the facts concerning mine workers and be governed by its findings.

"But the proposal to consider an advance of mine wages by itself raises a wholly different question. Speaking in your behalf and at your request, I promised the President of the United States last October that no further increases in wages would be asked for during the period of the war. I cannot and will not break that promise."

Recognizes Need of Gold Production

The Priorities Board of the War Industries Board, after carefully considering the matter of gold production, has adopted the following resolution:

"Be it Resolved by the Priorities Board that gold mining is an essential war industry, and the powers of this board will be so exercised as to accord to such industry preferential treatment in the supply not only of tools, machinery and equipment, but in transportation service, fuel supply and labor supply."

Alaska Chapter Elects Officers

At the regular annual meeting of the Tanana Valley Miners' Association, held at the experiment station of the Bureau of Mines, July 3, 1918, the following officers were elected for the ensuing year:

Board of directors—J. F. Zimmerman, John A. Davis, Ben Thompson, Albert Johnson, James A. Haney, G. A. McQuarrie, John Gross.

Governor—John A. Davis.

Vice-governors—Ben Thompson, G. A. McQuarrie, J. A. Haney.

Treasurer—J. F. Zimmerman.

Secretary—James Trail.

Executive committee—G. A. McQuarrie, John A. Davis, John Gross.

The meeting listened to an interesting discussion of the Kantishna mining district by John Gross, metallurgist, of the experiment station, and James A. Haney, who has been prospecting in that region.

An adjournment was taken until the first week in October. About twenty members were present.

Very truly yours,
Paul Hopkins,
Acting Secretary,
Tanana Valley Miners' Association.

Claim Surplus of Tank Cars

Director General McAdoo has received a report indicating that there was no change in the transportation condition of petroleum products. Surplus of tank cars in the mid-continent and Texas-Louisiana fields continues to remain in a condition whereby all demands for equipment can be promptly met. The daily movement from these two fields averages about 1,300 cars per day. This may be increased slightly during the next few weeks on account of the large demands of the west and northwest for agricultural activities, but no abnormal movement from the western field to the eastern seaboard is anticipated for the immediate future.

COAL MINING MAY BE AS HAZARDOUS AS WAR

An army of three-quarters of a million men, with no divisional or corps numbers, with no insignia except that of the man who labors and working far from the fanfare of trumpets, is the subterranean army of men who toil in the darkness of the underground to produce the coal that supplies the vital necessities of the other army now fighting the Huns.

That the coal miners constitute an army as truly as the men who march to the front is being attested daily by the enthusiastic reports that reach the Bureau of Mines of the Department of the Interior of records smashed in the production of coal. From all parts of the country, from isolated villages in places where one would imagine the war spirit was slow in penetrating, come these reports that miners have gladly given up their holidays in order that there should not be any slowing up of the great war machine that is destined to finally crush the Hun. These reports from operators not only give the facts of greater production, but generally add a virile comment upon what their organizations intend to do in the near future to help win the war. The patriotic spirit that pervades the operators is the same in the superintendents, the foremen and the men themselves. The lone miner in his working place, tearing the coal from its resting place, knows that more coal means more guns, more ships, more munitions, and that these mean victory and the saving of the lives of their brothers who are fighting across the seas.

Just recently the Bureau of Mines sent one of its representatives into the mines of Michigan, Tennessee and Ohio to investigate the pyrite which may be needed in the manufacture of sulphuric acid, the pyrite being the sulphur found in the coal. It is not known as yet whether it will be necessary to use these sulphur balls, the bureau making the investigation as a measure of preparedness. The investigator, however, found that the operators and the miners were ready to mine the pyrite just as soon as it was demanded.

The message brought back to the bureau by the investigator was that the outstanding feature of his trip was the absolute patriotism of the men and the general anxiety to help the Government in any way possible. The investigator found that the old socialistic chalk slogans on the walls of many mines has given way to "*Buy Liberty Bonds*" and many other references to winning the war. One of the most familiar of the signs in a number of mines to "*Buy Liberty Bonds*" and many other referevery electric motor seen in the mines carries a miniature American flag, bringing continually to the miners that the war is on and giving him the inspiration to greater effort.

And the miner is risking his life as well as the soldier boys at the front. In the year 1917, the last for which statistics are available, 2,696 miners gave up their lives while digging coal to win the war. Unfortunately, the Government does not tabulate the casualties of the mines as it does of the soldiers. If the number of injuries could be shown, they would indicate that mining, perhaps, is as hazardous as war. Yet the miner goes about his work with the same enthusiasm and the same fearlessness as the boys "over there," and is surely doing his part toward winning the war.

PERSONALS

F. P. Wright and Mrs. Wright, of Bevier, Ky., are spending a few weeks at the capital.

Walter Fitch, President, Chief Consolidated Mining Company, Eureka, Utah, was in Washington for several days last month. He made the offices of The American Mining Congress his headquarters.

Mr. and Mrs. A. G. Mackenzie have returned to Salt Lake after spending several weeks in Washington and New York.

J. F. Callbreath, secretary of The American Mining Congress, left Washington early in August for an extended western trip. He attended the conference of gold operators at Reno, August 12-15.

John T. Burns, western secretary of The American Mining Congress, is temporarily at the Washington office. He expects to remain at the Capital until early October, and will be very glad to have the western members of the organization call upon him for any service he may render.

Victor Rakowsky, of Joplin, Mo., was in Washington early in August.

Alexander Blair, Jr., is at the officers' training camp, Camp Humphries, Va. Mr. Blair has been associated with his father at the Pittsburgh Coal Company, Baskett, Ky.

Daniel Howard was in Washington for several days during August. "Uncle Dan" is working very hard to secure some relief in the transportation situation for West Virginia.

Dr. Arthur K. Adams recently returned from Chile, where he has been connected with the Andes Copper Company. After spending a short time at Spencer, Mass., he entered the officers' training school Camp Humphries, Va.

James S. Douglas, who for the past year has been in France with the American Red Cross, is in Arizona for a short time.

C. F. Dyke, Joplin, Mo., attended the meeting of the zinc producers in Washington the latter part of August.

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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

IMMEDIATE AID NECESSARY

Operators of low grade gold mines are not greatly concerned with the War Revenue Taxation Bill. Their concern is of means by which their operations can be brought into the class of excess profits earners. Many people have bewailed the fact that gold mines have passed into private ownership. The ancient rule that all precious metals belonged to the Crown embodies the principle which this school of thought has approved. If these conditions now prevailed can there be any doubt that the Government should push gold production to the limit? And yet by this course newly produced gold would undoubtedly cost double its coinage value. We submit that even that extraordinary cost had better be paid by the Government as applied to the cost of 5,000,000 ounces of newly produced gold representing the country's highest annual production, than to have the three thousand million dollars of our gold reserve go to a premium, which means that the purchasing value of the more than twenty thousand million dollars of credit and credit money which the gold reserves support, shall be depreciated in purchasing value.

Governor Harding, of the Federal Reserve System, gave timely warning to the recent Chicago convention of the American Bankers Association, when he said, "Yours to see that the purchasing power of this money is not impaired." These words should be taken seriously, not alone by bankers, but by the American people. And how shall it be done? We shall not undertake to answer this question, but we can point out one way by which it cannot be done. It cannot be done if we allow the source of supply of gold, the measure of our value and the basis of our credit, to be cut off, by damming the intake and opening wide the outlet of our supply reservoir. It cannot be done by decreasing the deposits and increasing the payment from our reserve bank. It cannot be done by weakening the foundation while enormously increasing the structure of credit which that foundation supports. The American Bankers' Association at its recent convention very wisely adopted a resolution "respectfully requesting and urging upon the Government of the United States the desirability of maintaining the production of gold to at least its pre-war volume." Our effort to maintain the gold mining industry is imperative if we are to maintain or partially maintain our pre-war production. Mines are now being closed which require enormous expense and years of time to reopen. Mining timbers in an unventilated mine quickly decay and the reopening requires much of time and expense as well as great risk to the workers so employed.

The immediate and pressing problem is for prompt efforts to prevent the closing down of mines which once closed cannot be opened except at a cost so great as to make operation absolutely unprofitable, even though gold might become worth many times its coinage value.

The pressure of high prices has gradually borne down the gold mining industry to a point where immediate aid is necessary to save it from extinction.

BANKERS URGE AID TO GOLD MINING

The annual convention of the American Bankers' Association was held in Chicago September 23 to 28, inclusive, and was attended by 4,116 delegates, representing banks from all sections of the country.

Many notable addresses were made, and much of the discussion related to the present war problems and the conditions which the after-war period will develop. Mr. Eugene Davis, of Nevada, representing the Western Gold Conference, recently held at Reno, Nevada, and the secretary of The Mining Congress were gallery spectators, greatly interested in the debate upon the gold question—the resolution offered by Mr. E. G. Crawford, of Portland, president of the Oregon Bankers' Association, and ably seconded by Noble James C. Burger, president of the Hamilton National Bank of Denver.

The following resolution was adopted:

> Whereas, the gold production of the world is rapidly decreasing; and
>
> Whereas the only form of relief that will prove effective and can be applied promptly is action by the United States Government in such form and by such methods as may be deemed fit and proper under the circumstances; and
>
> Whereas gold is the standard of value and the basis of all credit, and it is vitally important to the financial and commercial life of the nation and of the world; now, therefore, be it
>
> *Resolved*, That the American Bankers' Association, in convention assembled, respectfully request and urge upon the Government of the United States the desirability of maintaining the production of gold to at least its pre-war volume, and ask that steps be taken immediately to that end; and be it, therefore
>
> *Resolved*, That the secretary of this association be, and he hereby is instructed to send a copy of this resolution to the President of the United States, Secretary of the Treasury, and Secretary of the Interior, advising them of its adoption; and be it also further
>
> *Resolved*, That, considering the great importance of this subject, this convention recommends to the executive council that the matter be referred to the federal legislative committee and the currency commission for an exhaustive study and such action as may be deemed necessary.

COAL ABSORBED

The Scripture has been fulfilled. The lamb and the lion have lain down together telescoped. The coal industry and the Government have become one—by absorption.

If one is that sort of a thing which makes "political" speeches—turns phrases to catch the applause and hides ignorance behind a platitude—one would say that in these glorious times the people and the Government have become one, doing a common thing to win a common end.

But if one is a little more candid and is not seeking mere vacant popularity, one must admit that the Government has not only taken over the coal business, but it has absorbed it. The ink was on the table; the blotter took it up. Therefore, the Fuel Administration runs the mines, distributes the coal, gathers the statistics, does the thinking of the coal men about those figures, and even, by indirection, edits the coal trade papers. At least, it supplies the only available set of facts upon which the trade paper editors can formulate their opinions.

The coal industry, as such, has disappeared. In its place has come the Fuel Administration.

There is and can be no room for complaint about such a situation if the Fuel Administration can think and act for the whole coal industry. The "if" there is a big thing. It dominates the whole coal question. America needs coal. The world needs coal, and America is the only source of available supply. This means that the American coal question is, after all, the crux of many war questions. Indeed, there is nothing quite so big, unless it is the supply of iron ore.

With so many vexed questions revolving around the coal situation and with the coal problem reduced to a simple matter of producing more coal, there arises a need for intensified action by each individual in the coal trade. When you try to get that intensified action, you plunge headlong into a very human situation.

If left alone in a kitchen with food in the icebox and a stove in one corner of the room, no man is going hungry. He will develop the ingenuity and the directness of action which will feed him. But in precisely the same situation insert the man's wife, who is, naturally and properly, the boss of the job. Then the man becomes a doddering idiot and a nuisance. He is a mere incumberer of space. He can't take care of himself. He can't even execute an order. In a few moments his wife sends him away in despair.

That is precisely the situation in coal. With the nation filled with mines, with transportation at the door, the coal man can somehow manage to satisfy the demand. But he becomes the essence of clumsiness when he is forced to obey orders—in detail. There is no need to continue the analogy. It is obvious that too much direction kills the efficiency of the man directed.

There is no more a disposition to advocate here that the Fuel Administration be dispensed with than there is an intention to advocate that the directing heads of business concerns be discharged and that every office be organized on the cooperative basis. There is every intention to say that sensible direction is always necessary.

But there is no common sense in the effort to substitute bureaucratic rules for the natural initiative of the individual. The bureaus are not big enough—mentally—to issue orders in detail. Human nature is not pliable—or servile—enough to obey those orders efficiently.

If it were only possible to strike the happy mean! But, then, we have often wished we might unscramble eggs.

THE SHORTAGE OF LABOR

To the shortage of labor may be traced the continually increasing prices of the necessaries of life and the increasing burden upon laboring people everywhere, and particularly upon government and other employes, who are working for fixed salaries. We are withdrawing for war purposes approximately ten million men, or twenty-five per cent of the forty million who in this country are engaged in gainful occupations. It would seem that patriotic impulses would lead the remaining thirty millions of people to so increase their efforts as to make up for this shortage in the productive world.

THE MINING CONGRESS JOURNAL called attention some time ago to the fact that in order to keep up production it would be necessary for the working men of this country to add twenty-five per cent to their effectiveness, that we shall import ten millions foreign workers, or that our women should be forced to go to work. It still believes that the man who refuses to increase the hours of service and bring up the standard of efficiency to the highest point during the war period and prefers to see his wife or sister engage in menial labor lacks the qualities required to make a patriotic or a good citizen. Instead, however, of the remaining workmen attempting to make up the deficiency caused by this shortage, evidence comes from every section of the country to the effect that the scarcity of labor and the ease by which men may find employment elsewhere is destroying the discipline of management and greatly reducing the efficiency of the service rendered.

As a part of the investigation of the conditions existing in the gold mining industry, reports have been received by this office from a very large number of gold mines. The large majority of these reports show an increased cost of labor of from twenty-five to thirty-five per cent and a decrease of efficiency of from thirty to fifty per cent. We quote from a letter from a western mine operator: "The constant attempt to recruit labor here and there by overbidding the present employer is, I think, a most pernicious business, which is responsible for much of our trouble. Even the scarcity of men is not so alarming as the fact that they will not buckle down to work, but prefer to wander around from place to place." A telegram from the northern iron ore producing field says: "Is the Government going to establish a wage for the miner? This should be done at an early date because of fact that it is impossible to keep up with demands that are being made. Miners are demanding more wages as often as once a month. Operators because of the shortage of this kind of labor are bidding against each other. There is a limit to what can be paid, and it means the closing down of many mines unless there is some definite action taken to stop it. Uniform wage should be established during period of war."

From the coal mines and the oil fields comes the same story—that the workman because of the fact that there are plenty of other jobs awaiting him, not only fails to do the increased amount of work that the present war conditions require, but the work he does falls far short of its effectiveness in usual times because of the lack of discipline. THE MINING CONGRESS JOURNAL would be glad of some evidence that this condition is not true. But it recognizes the fact that human nature everywhere takes advantage when the opportunity offers. The Washington milliner selling hats for $25 and $30 which ordinarily sold for $12 or $15 explains by saying everybody seems to have plenty of money and "we can get the price." Even the colored domestic when appealed to by the mistress whom she was leaving with the question, "What am I to do?" replied: "You women will jes haf to learn to do yo' own work, 'cause all us ladies is goin' in de gov'ment." It is most unfortunate that this tendency to take advantage of the situation, which is so prevalent with all humanity, might not be set aside during the war time. Labor in the end will itself be forced to carry the burden. Luxuries and necessities of drone and worker alike must all come from the supply produced by the joint use of capital and labor, neither of which by itself can produce efficiently. The luxuries and necessities cannot be divided until after production has made them available for division. The dignity of labor can rest on no other foundation. The present shortage magnifies the importance of labor and furnishes the opportunity to demonstrate labor's patriotism.

GOLD MINING AS A BUSINESS

At present the most unremunerative business in the world is the mining of gold. For many years prior to 1915 the world production of gold had been declining because of the continually increasing cost of the labor, machinery and supplies required in its production, while the value of the product remained stationary. Gold is the standard of value. Its price and value must remain stationary else it ceases to be a standard. Incidental with these trying conditions the brains of the mining world applied themselves to the task of decreasing the cost of gold, both in devising improvements to the mechanical means employed in mining and reduction, and also in improvements of chemical and metallurgical processes employed in separating the infinitesimally minute particles of gold from the gangue material.

The greater part of the world's production of gold is from ores carrying less than $2 per ton, *i. e.*, one part of gold to 319,999 particles of other materials. Most of this gold is found in combination with other metallic substances from which it must be liberated by some metallurgical process. The finding of the proverbial needle in a haystack is not more difficult than the recovery of gold. The perfection and application of the result of scientific investigation as applied to gold reduction caught up with production cost in 1915. The production during that year, both in the United States and the world at large, was the greatest in history. Then prices took an upward turn and gold production diminished in corresponding ratio. These conditions apply only to low grade ore bodies. The few high grade producers were able to continue notwithstanding the increased costs of operation. In 1917 a new condition applied itself to the high grade and highly profitable gold mines. The war excess profits tax called for from 20 per cent to 60 per cent of the net operating revenue. This was an entirely proper tax, if proper allowance is made for depletion and depreciation; but without proper allowances for the exhaustion of the ore body, which represents years of hazardous development work, the extraordinary depletion of the plant because of the short life of the enterprise, the plant being practically worthless when the ore body is exhausted—the law becomes confiscatory. To illustrate: a promising prospect was taken under an option of $35,000 and $125,000 was spent in development resulting in the opening of a measured ore body with value estimated at $3,600,000. The probability that this ore body would extend beyond explored areas gave the stock of the company a market value of $4,800,000, at which price a large part of the stock was sold. The net operating revenue of this mine in the year 1917 exceeded a million dollars. Much of this was distributed in dividends or expended in the development of other properties prior to the passage of the revenue law of 1917. This property had no pre-war earnings, therefore was entitled to a deduction of 8 per cent on its invested capital; but what was its invested capital? Was it the $35,000 for which the original owners bought the undeveloped property or $4,800,000, at which the later stockholders purchased? Is depreciation to be allowed which will amortize the cost of plant in three or four years, the probable life of a high grade ore body, or upon the assumption that, like a manufacturing enterprise, the business will outlast the plant? Shall its depletion be allowed on the basis of the actually invested capital of the present stockholders or upon the theory that the option price, paid for the undeveloped prospect, measures the invested capital? Upon the determination of these questions depends the continued operation of high grade gold mines. These answers may be so given as to result in confiscation, in which case continuous operation cannot be expected. It is up to the Treasury Department.

INDIVIDUALISM VS. UNIONISM

The development of the mining industry of the United States has in past years depended very largely upon the business sagacity and fighting qualities of the individual operator.

Districts located in the same state have had to meet both development and labor problems from such different angles that it is not at all surprising that organizations of employers have not always "pulled together" for a common result. Organizations of employers in one state have often failed to consider the intrastate problems of their neighbors as of interest to themselves, and naturally have failed to see the inter-dependence of states, excepting as war problems have forced price-fixing problems upon them in these late days.

In fact, there has grown up among the men who have placed their time and fortunes in the mining industry a feeling that each man, or group of men, should consider personal interests first and common interests afterwards.

This individualism has been, and is, the common danger of the mining industry.

"Until mining operators cease to insist upon individualism, it will be impossible to put an end to conflicts between employer and employed," said an official of the American Federation of Labor to the writer recently. THE MINING CONGRESS JOURNAL would carry the speaker's theory still further. Until individualism is less the dominating factor in considering mining problems, the mining industry will continue to get the minimum protection under existing and threatened laws, in taxation, in marketing problems, in labor contests, and, more important than all, in the economic results from the readjustments which *must surely soon come in America* as the aftermath of the war.

Labor makes no such error as is charged against the mining cult as a whole. It has made its mistakes In many instances it has failed to consider that there are two sides to a controversy. It is "riding in" on the rebound of the pendulum which came from contact with certain admittedly unjust conditions where nothing but a fight for their rights could have brought about reforms. It has begun to assume that only unionism is right; and therein lies not only a danger to unionism but to the country at large. But the one big fact stands prominently out for consideration—labor unionizes, and unionism is already recognized as an element in the federal administration. In the working out of all war policies where labor, or prices, or production are concerned, the American Federation of Labor, through the astute political scheming of its president, has its hand upon the whole situation.

The United States Department of Labor is publicly admitted to be the official representative of union labor in the federal scheme of administration. The Federal War Labor Policies Board is headed by Felix Frankfurter, formerly counselor for Secretary Wilson. The Mining Division of the Labor Department is under the skillful hand of James Lord as chairman, and Mr. Lord is well known as a federation man. Its secretary is William Diamond.

And over all there is Mr. Gompers, with a cleverly selected group of tried and true laborites.

To state these facts is to extend a tribute to the sagacity of the men who champion the cause of unionism. The interests of labor as represented in unionized labor are in good hands, and more, these interests are *centralized*, and there can be no crossing of wires or failure of maximum results. These men believe and practice their life-long preaching, "In union there is strength."

Labor is well entrenched and in position for either defensive or offensive work. That does not prove that labor is always right, but the results obtained prove the *wisdom* of *concentration* in organization.

THE NEW REVENUE BILL

The new revenue bill (H. R. 12863) has been passed by the House of Representatives, and is now before the Senate Finance Committee for consideration.

The Secretary of the Mining Congress presented to the committee, a number of suggested amendments, which appear on another page of this issue. At a later date a general conference was held in the office of The Mining Congress in Washington between representatives of The American Mining Congress and the National Petroleum War Service Committee, which conference agreed upon changes in the recommendations therebefore made. These changes were prepared by a sub-committee, consisting of Mr. Edward L. Doheny, Judge J. Harry Covington, Mr. George E. Holmes, Mr. John J. FitzGerald, Mr. Paul Armitage, Mr. John C. Howard, and Judge A. Scott Thompson, which recommendations have been presented to the Senate Committee on Finance by this committee, as the joint recommendation of these two organizations.

These recommendations represent the finished efforts of the joint committee representing both organizations, with full knowledge of the general needs of the mining industry, the temper of the Congress of the United States, and the present status of the legislation involved.

The suggested amendments are as follows:

INCOME TAX

I

SALES OF MINING, OIL OR GAS PROPERTIES

We suggest amendment of Section 211 by adding after line 15 the following:

> "Provided, in the case of a bona fide sale of mines, oil or gas wells, or any interest therein by the individual owner thereof, the surtax shall be computed under this section but shall not exceed 20 per cent of the selling price."

Unless this is adopted, development of new oil, gas and mineral bodies will be held back because the prospector who has made the find is not financially able to develop it further, and he refuses to sell because of the heavy war taxes and production is lessened.

We suggest additional Section 337 on page 68 after line 7 as follows:

> "Sec. 337. In the case of a bona fide sale of mines, oil or gas wells, or any interest therein, by a corporation owner thereof, the tax computed under this title shall not exceed 20 per cent of the selling price."

II

DEPLETION AND DEPRECIATION AS APPLIED TO MINES, OIL AND GAS WELLS.

Deposits must be continually renewed or discovered. This must be done at unknown costs varying over a wide range from extremely low figures to amounts far in excess of the market value of the production when found. The producer now selling a product which has been discovered at only a fraction of the average cost should be allowed some insurance against the time when the discovery cost will be far more than it can be sold for and resulting in net loss.

We suggest an amendment to meet this condition, to wit:

Amend paragraph 10 of Section 214 to read as follows:

(Amendment in italics.)

FOR INDIVIDUAL

> (10) *"In the case of mines, oil and gas wells, (a) a reasonable allowance for depletion; and (b) a reasonable allowance to replace the ore, oil or gas withdrawn during the year, equal to the estimated cost of replacements of a like quantity in the ground, to be fixed by the Commissioner upon the basis of the average cost of such replacement in each general district, the allowance under (b) to be reduced by any allowance under (a) for each taxable year, and, Provided, that any amount of the aggregate allowance under (b) when used for any purpose other than prospecting, developing or acquiring additional deposits shall be included in net income;* (c) a reasonable allowance for depreciation of improvements; such reasonable allowance in all the above cases to be made according to the peculiar conditions in each case, and under rules and regulations to be prescribed by the Commissioner with the approval of the Secretary. In the case of leases the deductions allowed by this paragraph shall be equitably apportioned between the lessor and lessee. In the case of a non-resident alien, individual deductions under this paragraph shall be allowed only as to property within the United States;"

Also amend paragraph (9) of Section 234 to read as follows:

(Amendment in italics.)

SAME FOR CORPORATIONS

> (9) *"In the case of mines, oil and gas wells, (a) a reasonable allowance for depletion; and (b) a reasonable allowance to replace the ore, oil or gas withdrawn during the year, equal to the estimated cost of replacement of a like quantity in the ground, to be fixed by the Commissioner upon the basis of the average cost of such replacement in each general district, the allowance under (b) to be reduced by any allowance under (a) for each taxable year, and, Provided, that any amount of the aggregate allowance under (b) when used for any purpose other than prospecting, developing or acquiring additional deposits shall be included in net income; (c) a reasonable allowance for depreciation* of improvements; such reasonable allowance in all the above cases to be made according to the peculiar conditions in each case, and under rules and regulations to be prescribed by the Commissioner with the approval of the Secretary. In the case of leases the deductions allowed by this paragraph shall be equitably apportioned between the lessor and the lessee. In the case of a foreign corporation the deductions under this paragraph shall be allowed only as to property within the United States."

III

THE 6 PER CENT DIFFERENTIAL TAX ON UNDISTRIBUTED PROFITS WHERE REQUIRED IN THE BUSINESS SHOULD BE ELIMINATED. (See Sec. 230.)

Business should not be penalized for retaining the necessary amount for its use in the enterprise.

We suggest the revision of the existing law as follows:

> Amend Subdivision (a) of Section 230 by adding after the figures "1918" in line 8 on page 32 the following words:
>
> > "plus (4) the amount actually invested and employed in the business or which is retained for employment in the reasonable requirements of the business."
>
> Amend Subdivision (b) of Section 230 by adding after the figures "1918" in line 24 on page 32 the same words as quoted above.

EXCESS PROFIT TAX AND WAR PROFIT TAX

IV

THE PROPOSED LAW SHOULD ALLOW CORPORATIONS WITH PRE-WAR EARNINGS THE SAME PERCENTAGE CREDIT ON ADDED CAPITAL AS ITS PRE-WAR EARNINGS WERE OF THE THEN CAPITAL.

This will equalize the tax between old corporations having large capital and a large percentage of earnings during the pre-war period and corporations with small capital during same period but having added thereto since the war.

We suggest the following:

> Amend (2) of Subdivision (a) of Section 312 to read as follows:
>
> "An amount which bears the same ratio to the invested capital for the taxable year as the average net income of the pre-war period bears to the average invested capital for the pre-war period; but if the tax is computed for a period of less than twelve months such amount shall be re-

> duced to the same proportion thereof as the number of months in the period is of twelve months."

V

THE PROPOSED LAW FAILS TO ALLOW TO NEW CORPORATIONS A CREDIT OF THE NORMAL PROFITS LIMITING IT TO 10 PER CENT ON CAPITAL INVESTED. THIS DISCRIMINATES AGAINST ALL CORPORATIONS WITH NO PRE-WAR RECORD AND TAKES 80 PER CENT OF THEIR PROFITS OVER 10 PER CENT. AN EXAMPLE WILL MAKE THIS CLEAR.

Two corporations with invested capital of $1,000,000.00 each (1) with pre-war earnings of 15 per cent and a taxable income of 15 per cent, (2) the other without a pre-war record but with similar income.

The tax computed as follows: (Specific exemption omitted for simplicity).

(1) Old company would not be taxed under the war profit method and the tax under excess profits method would be as follows:

Net income	$150,000.00
Credit 8 per cent of capital	80,000.00
Income taxable at rate of 35 per cent	$70,000.00
Tax	24,500.00

(2) New company will be taxed under war profit method as producing a higher tax:

Net earnings	$150,000.00
Credit of 10 per cent of capital	100,000.00
Taxable at 80 per cent	$50,000.00
Tax	40,000.00

There is no reason for such discrimination. Neither makes a war profit.

We propose the following amendment, which will place new corporations on an equal basis:

> Amend Section 312, Subdivision (b) to read as follows:
>
> "(b) If the corporation were not in existence during the whole of any one calendar year during the pre-war period, or if it had no net income for the pre-war period, then the war-profits credit shall be the sum of:
>
> (1) A specific exemption of $3,000.00; and
>
> (2) An amount which bears the same ratio to the net income of the corporation for the taxable year as the war-profits credit under paragraph (2) of Subdivision (a) of representative corporations for the taxable year, engaged in a like or similar trade or business and having net income in the pre-war years, bears to the net income of such representative corporations; but in no event to be less than 10 per cent of the invested capital of the corporation for the taxable year."

VI

THE LIMITATION OF THE INVESTED CAPITAL TO THE *PAR VALUE OF THE STOCK* SHOULD BE STRICKEN OUT.

To effect this we suggest the following amendment:

> Section 326: Amend Subdivision (a) by substituting, in lieu of Subdivisions (1) and (2), the following:
>
> (1) Actual cash paid in;
>
> (2) Actual cash value of tangible property, other than cash, paid in, at the time of such payment, but if paid in prior to January 1, 1914, the value as of such date.

This amendment also restores the provision in the present law valuing properties of older companies as of January 1, 1914.

The invested capital of all of the older corporations have been already arrived at by the Treasury Department. The bill as proposed will require a *reappraisement* and, in many cases, at a remote date, when data is unavailable.

This amendment gives credit for all cash or tangible property paid in for stock or otherwise.

VII

THE TAX WHEN ASSESSED AND PAID IN GOOD FAITH SHOULD BE FINAL.

We propose an amendment to Section 1201 that secures this.

Amend Section 1201 to read as follows:

> (Amendment suggested in italics.)
>
> "That the Secretary or the Commissioner may and on the request of any taxpayer directly interested shall submit to the Board any question relating to the interpretation or administration of the Internal Revenue Laws, *or involving the assessment or determination of any tax thereunder*, and the Board shall report its findings and recommendations to the Secretary or the Commissioner, as the case may be, *and such findings on any question involving the tax shall when approved by the Commissioner be final unless set aside by a court of competent jurisdiction.*"

VIII

SECTION 336 OF THE PROPOSED BILL PROHIBITS CONSOLIDATED RETURNS.

This should be stricken out and some proper provision adopted permitting affiliated returns. Many mining corporations are subsidiary operating companies with identical ownership and inter-transactions with a parent company making it all one business. The Treasury Department has recognized the necessity of such by Article 77 of Regulations 41.

TEAM WORK AT PENNA. COAL AND COKE CORPORATION'S MINES

There are good concrete examples available to show what coal operators and coal miners are doing toward greater production to meet the nation's war needs. The Pennsylvania Coal and Coke Corporation, operating thirty-two mines, illustrates what scientific team work will do. Though the pay-roll at the end of August showed fewer miners than in April, the percentage of time worked was increased from 85 in April to 88 per cent in August, while the company's output was increased from 282,331 tons in April to 331,947 tons in August, M. D. Edmonds, of the Fuel Administration, reports.

As explained by R. D. Mainwaring, superintendent for the company, with headquarters in Cresson, the speeding-up system was put into effect by the corporation in May. Each mine is divided into sections, and a "section foreman" is placed in charge. Each day this section man makes a detailed report on each miner who is at work or who should be at work. The report includes the hours worked by the tipple, the hours worked by the individual miner, the number of mine cars he loaded, whether at pick work, machine work or "cut and load"; the additional cars needed, if any; the time the first car was placed, the time the last one was placed, and the reasons for loss in tonnage if the miner's output does not come to the average. These daily reports are digested every half month into a semi-monthly form covering each man employed. The semi-monthly digest covers tonnage losses due to the company's faults or misfortunes, losses due to the employe through illness, drunkenness or whatever cause, and losses due to unavoidable causes, such as insufficient railroad cars or insufficient power.

From the daily sheets the colliery "truant officer," for that is what he really is, gets his notes on absentees and makes personal visits to learn the cause for failure to work. These reports are tabulated, and some of them make interesting reading. Unfortunately in all too many cases booze is responsible for absence from work, and Mr. Mainwaring agrees that the excessive use of liquor is the greatest avoidable obstacle to increased coal output.

It is to be noted that the section foremen are supposed to report everything which results in decreased output. The result is that the company's shortcomings go down on the list in case the company is responsible. Thus if a miner is held up two hours for lack of supplies it goes down, and it is the foreman who must explain. If a certain section of the mine, for example, were to lose right along by a regular succession of accidents it is quite likely the boss would have to give some good reasons to justify himself. In short, the system seems to have had the effect of putting everybody on his toes and keeping him there. The result is an increase of almost 50,000 tons for August over April, and they are now talking of 335,000 tons for September. That would be more than 100,000 tons over last January's mark.

All told, the Pennsylvania Coal and Coke Company employs between 150 and 200 persons in this production system. The daily tonnage reports, under this plan, are posted at each mine and the weekly totals mined by each colliery are to be posted in the same way, so each mine can keep track of its competitors. Some of the section foremen report surprising achievements. Thus Section 2, Colliery No. 10, for the first half of August had an efficiency rating of 128, based upon what had been calculated as its probable output.

A typical half-month report for one of this company's mines shows that while 4,914 cars had been expected, 4,083 were mined, the efficiency percentage being 83.10. Several hundred cars were lost for unavoidable causes, but in the list was the loss of 134 attributed directly to drinking.

There are some aspects of these highly practical production reports which sound the note of human interest and human worthiness, too. Time and again, in places where it might be expected seven or eight cars a day would be loaded, it is found that only five or six have been turned out. Over along the side will be seen the notation, "old man." These are the veterans of coal mining, not so good as they once were, but willing to do what they can. Truly they are gladiators, those "about to die," saluting the republic through the medium of their conscientious labor, and steeling the arm of the republic against its foes.

WAR MINERALS BILL PASSES SENATE WITHOUT OPPOSITION

Before this issue of the JOURNAL will have found the tortuous way through the printing establishment, the War Minerals bill will have become a law. The bill passed the Senate after considerable debate without a roll call. Despite the radical changes made in the bill by the Senate, the House conferees accepted the measure with minor changes. The House itself was not so easily satisfied, but after considerable talk decided that the conferees had not shown poor judgment after all. The Senate agreed to the conference report without comment.

There is no certainty at this writing as to the action the President will take under the new legislation. It is expected, of course, that matters of allocation and price-fixing will be given over to the War Industries Board, but whether the other powers will be given to the Bureau of Mines or divided between the two agencies cannot be stated with authority. The matter has been the subject of much interested speculation.

WORLD'S PRODUCTION OF PETROLEUM

[Prepared by J. D. Northrup, United States Geological Survey, Department of the Interior.]

Country	Production, 1917			Total production, 1857–1917		
	Barrels of 42 gallons	Metric tons	Per cent of total	Barrels of 42 gallons	Metric tons	Per cent of total
United States	(a) 335,315,601	44,708,747	66.98	4,252,644,003	567,019,201	60.89
Russia	(b) 69,000,000	9,418,509	13.78	1,832,583,017	242,336,152	26.24
Mexico	55,292,770	8,264,266	11.04	222,082,472	33,166,241	3.18
Dutch East Indies	(c) 12,928,955	1,778,495	2.58	175,103,267	23,628,200	2.51
India...	(b) 8,500,000	1,133,333	1.70	98,583,522	13,144,469	2.41
Galicia ...	5,965,447	(d) 829,629	1.19	148,459,653	20,646,663	2.13
Japan and Formosa	2,898,654	386,487	.58	36,065,454	4,808,727	.52
Rumania	2,681,870	(b) 373,000	.54	142,992,465	19,283,174	2.05
Peru	2,533,417	337,789	.51	21,878,285	2,917,104	.31
Trinidad.....	1,599,455	222,456	.32	5,418,885	753,670	.08
Argentina.....	1,144,737	168,340	.23	3,047,858	436,033	.04
Egypt...	1,008,750	134,500	.20	2,768,686	360,158	.04
Germany	995,764	(b) 140,000	.20	15,952,861	2,155,974	2.30
Canada.....	205,332	27,378	.04	24,112,529	3,215,004	3.50
Italy..	50,334	(b) 7,000	.11	947,289	133,919	.01
Other countries	(b) (e) 530,000	70,667		927,000	123,600	.01
	500,651,086	68,000,596	100.00	6,983,567,246	934,137,289	100.00

(a) Quantity marketed.
(b) Estimated.
(c) Includes British Borneo.
(d) Estimated in part.
(e) Includes 19,167 barrels produced in Cuba.

PUBLIC OPINION SUPPORTS GASOLINE SAVING ORDER

Many and effective are the methods adopted by patriotic citizens to shame those who ignore the request that pleasure driving of automobiles be discontinued on Sundays.

The Fuel Administration was content with making known the necessity for gasoline saving and made no effort at enforcement of the Administration's request. Public opinion proved all potent in seeing that the request was generally heeded.

In several cities the boys made life miserable for motorists who failed in their duty. Epithets were hurled at these drivers. In some instances where automobilists ignored the request and displayed flags on their machines, these emblems were removed with the contention that anyone who so failed in his patriotic duty had no right to display the flag.

The women in many cities constituted themselves an efficient factor in seeing that the request was complied with. Sunday motorists were stared at and the women made plain in other ways their unfavorable opinion of those who declined to obey the request of the Fuel Administration.

In many places the police took a hand by requiring all motorists to explain their purpose in using their cars on Sunday. The newspapers led public opinion by the manner with which, without exception, they criticised those who used their cars. Some papers even printed a list of those who ignored the request, so that the neighbors of the violators might know and, through their scorn, act as a powerful influence against the violation being repeated.

PRESBYTERIAN WAR COMMISSION TO URGE COAL PRODUCTION

The War Commission of the Presbyterian Church, seventy laymen and preachers from all parts of the United States and Canada, called at the United States Fuel Administration to tender their services in any capacity they might be found of use.

Moderator J. Frank Smith, of Dallas, Tex., stated to James B. Neale and P. B. Noyes, who received the commission on behalf of Fuel Administrator Garfield, that the members of the War Commission were preparing for a speaking drive to cover the entire nation from November 10 to December 10.

The facts as to the tremendously increased demand for coal production caused by the war, the danger of a shortage that might cripple the war machine, and the vital need of conservation were dwelt upon in addresses by Messrs. Neale and Noyes, who afterwards furnished the members of the commission with material to be used in their speeches in aid of the Fuel Administration's work.

USERS OF PLATINUM BROUGHT UNDER LICENSE

Regulations Are Issued—Hennen Jennings Sets Forth Advantages to Be Gained by Bringing Industry Under Control.

Regulations for the sale, possession and use of platinum, iridium and palladium have been prepared by a committee consisting of Hennen Jennings, Dr. C. L. Parsons, of the Bureau of Mines; J. M. Hill, of the Geological Survey; C. H. Conner, of the War Industries Board; Dr. W. F. Hillebrand, of the Bureau of Standards. Mr. Jennings discusses the situation as follows:

Through the Secretary of War, the Chemical Section of the War Industries Board, in February, 1918, was given power to requisition platinum for government purposes. Three requisition orders have been issued, each one broader in scope than the preceding. On February 23 the first covering only 14 names was issued; on May 1 the second covering over 900 names; and on June 25, the most recent, covering 1,555 names. Negotiations for raw platinum are being carried on by the Ordnance Department and War Industries Board in foreign countries. The War Industries Board have not, however, heretofore, had adequate machinery for dealing with licensing or the enforcement of rules and regulations. Mr. Conner was made Chairman of the Platinum Section of the War Industries Board in March, 1918.

The powers granted you under the Act of October 6, 1917, carry an appropriation of $300,000 and have permitted a great organization for the proper administration of the Act, as the organization comprises 49 United States Explosives Inspectors, one in each State, and each inspector has an advisory committee of from 10 to 20 men, with a statewide organization of several men to a county and numbering nearly 5,000 members. In addition, there are some 15,000 licensing agents throughout the country, and in Washington an organization of some 60 persons. A penalty is provided for the violation of any of the provisions of the Act, by a fine of not more than $5,000 or imprisonment of not more than one year, or both fine and imprisonment.

By the Appropriation Act of July 1, 1918, the Director of the Bureau of Mines' powers were enlarged in connection with the Explosives Act, as under:

"*Provided*, That any license issued under the Act of October sixth, nineteen hundred and seventeen, may be canceled by the Director of the Bureau of Mines if the person to whom such license was issued shall, after notice and an opportunity to be heard, be found to have violated any of the provisions of the Act:—*Provided further*, That platinum, iridium, and palladium and compounds thereof, are hereby made subject to the terms, conditions, limitations of said Act of October sixth, nineteen hundred and seventeen, and the Director of the Bureau of Mines is hereby authorized, under rules and regulations approved by the Secretary of the Interior, to limit the sale, possession and the use of said material."

Neither the Act itself nor the amendment gave the power to requisition the metals or appropriation to purchase them.

One of the great advantages of these new regulations and the machinery for enforcement through the personnel of the explosives organization, is that it will permit in the future the obtainment of more accurate information as to the stock on hand, the relative consumption and uses, and the future requirements of these metals in various industries. From the discussion of these regulations and a general study of the subject, as well as my own experiences, I have been impressed with the great discrepancies of estimates and the impracticability of obtaining accurate statistics by mere favor or request, without authoritative edict accompanied by penalty.

Representatives of the War Industries Board have set forth the sudden and great increases that the government authorities had found it necessary to make in connection with platinum, etc., requirements. In fact the Government's estimate of requirements was only 40,000 ounces in March and 69,000 in June. Their statement of stocks on hand, while large, is not reassuring should the war continue for years, and the Russian platinum mining be long suspended by internal revolution.

For the year 1913 the world's production of crude platinum has been given at about 313,000 ounces troy, while for 1917 only 83,000 ounces; thus at present there is obtained from all the mines only 26½ per cent of the pre-war output. In 1913 Russia was credited with 95 per cent of the total and in 1917 only 60 per cent.

Iridium is associated with platinum and the supply of this metal is for the most part obtained from the platinum deposits of Russia. Platinum was discovered in Colombia, South America, in 1735. In 1810 it commanded only from 30 to 40 cents an ounce. It was found in Russia in 1819. In 1828 it had a value of about $7 an ounce. The fluctation in values of platinum and iridium from 1901 to 1914 is most noticeable, the price per troy ounce of platinum varying from $14 to $36. Since 1914 platinum and its allied metals have varied in price as follows: For 1914, platinum $45, iridium $65, and palladium $44; 1915, platinum $55, iridium $83, and palladium $67; 1917, platinum $103, iridium $150, and palladium $110; 1918, platinum $105, iridium $175, and palladium $135, the Government fixed prices.

Next to Russia, Colombia produces the largest amount of platinum and presents the most promise of larger future outputs under stimulus of higher prices. Platinum in this country is found in many places but in small quantity, being less than 1 per cent of the world's production, but with the present high price its discovery and production in this country may be somewhat increased.

The United States Mints should give further aid by making report and payment as far as possible of the platinum received by them. In fact, the mints should be given appropriation and facilities to better deal with the platinum situation.

The seriousness of the platinum metals situation lies in the fact that as the output of the mines have been decreasing so have the demands for essential and industrial requirements—thus war needs—have been steadily and greatly increasing.

Platinum and its associates are far more rare than gold. In the 1917 report of the Geological Survey, it was shown that the estimated output of platinum in the world varied from 5,000,000 to 11,000,000 ounces, whereas the Director of the Mint's statistics would go to show that about 830,000,000 ounces of gold have been mined since the discovery of America; thus the output of gold by weight has been in the neighborhood of from 80 to 100 times that of platinum.

As an ornament, the lustre and color of platinum is inferior to gold, but more than its equal in indestructibility. It is superior to gold in its infusibility and more useful for industrial purposes. Its electrical usefulness is also far greater than gold. It is a misfortune, therefore, that with only a limited and waning supply of platinum found in the placer deposits, it has ever become fashionable as an ornament, and its use as such should be discouraged in all reasonable ways. These regulations and requisition orders submitted, prevent further manufacture of platinum for all ornamental and non-essential purposes during the duration of the war. It is not, however, intended to now prevent the sale of platinum jewelry already manufactured. It is believed that in case of great need the women of the country will be willing to give up their platinum ornaments for the benefit of their country.

The varied uses of platinum, iridium, and palladium are indicated in the listment of licenses in the regulations. In the Geological Survey Report on "Platinum and Allied Metals," for 1917, these uses are given in considerable detail, and are finally summarized as follows:

"Platinum, iridium, and palladium, are essential for the conduct of the war: platinum, principally for the chemical industry; iridium, chiefly for the electrical industry; and palladium, for the dental industry, in order that more platinum may be released for chemical work."

At present platinum has been provided for plants with total capacity of 2,200,000 tons production of concentrated sulphuric acid. The new plants and expansion of old ones are now planned to bring up the output to 3,000,000. This will require an extra 32,000 ounces of platinum for catalizing purposes.

The nitric acid output of the country is about 1,000,000 tons a year, made very largely from Chile saltpeter and without the use of platinum. When our nitrogen fixation plants are in operation and our by-product coke ovens expanded it will be necessary to convert their ammonia products into nitric acid by use of platinum as a catalizer. The government is now spending $100,000,000 in obtaining nitrogen from the air and the by-product coke ovens are being largely increased by private enterprise. If by any chance we should be cut off from Chile, all nitric acid would have to be made by the oxidation of ammonia requiring platinum gauze catalizer for new plants at the rate of 25 or 30 ounces per 1,000 tons yearly capacity of nitric acid. The platinum in use in these processes is not destroyed by the acid but can be and is used over and over again. The other important requirements of platinum compounds include contact points in magnetos for aeroplanes, trucks, automobiles, also telegraph instruments, etc., etc., and for chemical laboratory apparatus.

The platinum regulations are as follows:

The following regulations are hereby promulgated under the provisions of the Act of October 6, 1917, (40 Stat., 385), as amended by the Act of July 1, 1918, (Public, No. 181), authorizing the Director of the Bureau of Mines, under rules and regulations approved by the Secretary of the Interior, to limit, during the period of the war, the sale, possession, and use of platinum, iridium, and palladium, and compounds thereof:

Section I. The War Industries Board is hereby designated under section 21 of the Act of October 6, 1917, and the President's proclamation of October 26, 1917, as the agent of the Director of the Bureau of Mines in the execution of the regulations as hereinafter indicated.

Sec. II. From and after the date of these regulations, under the penalties prescribed by section 19 of the Act of October 6, 1917,[1] no person[2] shall:

Par. a. Use any platinum scrap, iridium, or iridium scrap, palladium or palladium scrap, and/or compounds thereof, in the manufacture, alteration, or repair of any ornament or article of jewelry.

Par. b. Manufacture for use in dentistry any metal, metal parts, or alloys containing more than 20 per cent by weight of platinum or 40 per cent by weight of platinum, iridium, and or palladium combined, or manufacture supplies therefrom.

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[1] Section 19 of the Act of Oct. 6, 1917, is as follows:

"That any person violating any of the provisions of this act, or any rules or regulations made thereunder, shall be guilty of misdemeanor, and shall be punished by a fine of not more than $5,000, or by imprisonment not more than one year, or by both such fine and imprisonment."

[2] The word "person," for the purposes of these regulations, shall be construed in accordance with the definition contained in section 4 of the Act of Oct. 6, 1917, which is as follows:

"That the word 'person' when used herein shall include States, Territories, the District of Columbia, Alaska, and other dependencies of the United States, and municipal subdivisions thereof, individual citizens, firms, associations, societies, and corporations of the United States and of other countries at peace with the United States."

Sec. III. From and after the date of these regulations, under the penalties prescribed by section 19 of the Act of October 6, 1917, no person shall without a license—

Par. a. Purchase, sell, barter, or deal in unmanufactured platinum, iridium, or palladium, or compounds thereof (including crude, scrap, filings, polishings, or sweeps), except that sales may be made without a license to an authorized agent of the United States or to a licensee authorized to purchase the same; or possess for more than 90 days after the date of these regulations one ounce troy, or more, of such unmanufactured platinum, iridium, palladium, or compounds thereof.

Par. b. Possess, use, sell, purchase, or barter, for purposes connected with his business, platinum, iridium, palladium, or compounds thereof (except that sales may be made without license to an authorized agent of the United States, or to a licensee authorized to purchase the same), if such person be engaged in—

No. 1. Producing platinum, iridium, or palladium, or compounds thereof, by mining.

No. 2. Producing sulphuric acid, nitric acid, or other chemical products where platinum, iridium, palladium, or compounds thereof are used in such production.

No. 3. Importing or exporting platinum, iridium, or palladium, or compounds thereof.

No. 4. Producing platinum, iridium, or palladium, or compounds thereof, either as a primary product or as a by-product of smelting or refining.

No. 5. Manufacturing electrical appliances and or parts thereof containing platinum, iridium, or palladium, or compounds thereof.

No. 6. Manufacturing surgical appliances and X-ray apparatus containing platinum, iridium, or palladium, or compounds thereof.

No. 7. Manufacturing chemical apparatus and reagents of all kinds containing platinum, iridium, or palladium, or compounds thereof.

No. 8. Conducting or operating chemical laboratories in which platinum, iridium, or palladium, or compounds thereof, are used.

No. 9. Manufacturing scientific instruments containing platinum, iridium, or palladium, or compounds thereof.

No. 10. Manufacturing and/or distributing dental supplies containing platinum, iridium, or palladium, or compounds thereof.

No. 11. Manufacturing and/or dealing in jewelry containing platinum, iridium, or palladium, or compounds thereof.

No. 12. Manufacturing or producing any article or product not mentioned above where such business requires more than one ounce troy per month of platinum, iridium, or palladium or compounds thereof.

Sec. IV. Applications for licenses shall be made under oath to any licensing agent duly authorized under the Act of October 6, 1917, as provided in the regulations issued under this act.

Sec. V. Every applicant for a license will be required to submit with his application a sworn inventory of all platinum, iridium or palladium or compounds thereof in his possession or control; and every licensee will be required to submit at such times as may be designated by the War Industries Board a sworn inventory of his holdings of platinum, iridium, or palladium or compounds thereof in whatever form they may be.

The Director of the Bureau of Mines, at the request of the War Industries Board, may at any time require from any user or possessor a detailed sworn inventory of any and all materials held by him containing platinum, iridium, or palladium or compounds therof, and such inventory must be furnished promptly upon recipt of such requirement.

Sec. VI. All licenses shall be issued in the name of the Director of the Bureau of Mines and countersigned and delivered by the War Industries Board, and shall be, and remain subject to the following conditions:

Par. a. Each license shall contain such appropriate conditions as the Bureau of Mines, through the War Industries Board, may impos.

Par. b. The Bureau of Mines through the War Industries Board may change the conditions of the license from time to time, as it may deem necessary.

Par. c. Records shall be kept by each licensee of all his sales, purchases and other transfers of platinum, iridium or palladium or compounds threof, and of articles containing platinum, iridium, or palladium or compounds thereof, with the names and addresses of the purchasers, sellers, and/or transferees, and the quantities involved, which records shall be open at all reasonable times to the duly authorized representative of the Director of the Bureau of Mines.

Par. d. Any and all platinum, iridium, or palladium, or compounds thereof, acquired under the authority of such license shall be used strictly for the purposes and in the manner stated in such license.

Par. e. Upon request of the War Industries Board, the licensee shall report the prices at which sales of his products containing platinum, iridium, or palladium, or compounds thereof, are being made, and the right to prohibit further sale of such articles at prices deemed exorbitant by it reserved to the War Industries Board.

Sec. VII. Any licenses issued hereunder may be revoked for violation of any of these regulations, or for violation of any of the conditions contained in such license, or if such revocation is deemed necessary or advisable for purposes of the national security and common defense.

Sec. VIII. The War Industries Board will, upon request, furnish a list of government agents or licensees authorized to purchase platinum, iridium, or palladium, or compounds thereof. Neither the United States nor its representatives will assume any responsibility, financial or otherwise, where sales are made to licensees.

Sec. IX. The prices at which platinum, iridium, or palladium will be purchased by a duly authorized agent of the United States or by such licensee as may be authorized to purchase or sell platinum, iridium, or palladium, or compounds thereof, will be such prices as may be determined by the proper governmental agency authorized to determine such prices.

Sec. X. Whenever such government agents and such licensees as may be authorized to purchase platinum, iridium, or palladium or compounds thereof, shall refuse to purchase the same from any person who is compelled by these regulations to sell the same, or is forbidden by these regulations to possess or use the same, then such person shall promptly notify the Platinum Section, War Industries Board, Washington, D. C.

Sec. XI. These regulations shall not operate to relieve any person upon whom an order requisitioning platinum, iridium, or palladium or compounds thereof may have been or may hereafter be served, from any obligation imposed upon him by such order.

Sec. XII. These regulations are supplemental and amendatory to the regulations heretofore issued under the Explosives Act of October 6, 1917.

CRUDE OIL REQUIREMENTS ARE 25,000,000 BARRELS GREATER FOR 1919

Before a public meeting at Cooper Union, New York City, September 28, held under the auspices of the United States Fuel Administration, M. L. Requa, Director of the Oil Division, presented some interesting facts as to the shortage of gasoline. His plea was for as great a conservation and lack of waste of gasoline as possible. He said:

"We will need this year, to meet only a normal increase in consumption, not less than 25,000,000 barrels of crude oil more than we used last year. We used only 16,000,000 barrels in 1897. This grew to 166,000,000 barrels in 1907 and to 340,000,000 barrels in 1917. If we are to meet this normal rate of growth, we must have not less than 365,000,000 barrels in 1918. This is 66 per cent of the total production of the world, and yet it is not enough."

Mr. Requa spoke of the difficulties of transportation, and said that although the pipe lines bringing oil from Oklahoma had been largely increased, no more oil could be carried than was carried at present unless new pipe lines were built.

Speaking more directly of gasoline, he said:

"In the first half of 1918 our gasoline production has increased more than 8,000,000 barrels, but our consumption has more than kept pace with this. Our stocks of kerosene are 2,000,000 barrels less than on the first of this year, and our stocks of crude oil are 12,000,000 barrels less.

"All demands for export will continue to be met from the 350,000,000 barrels of crude oil, the 80,000,000 barrels of gasoline, the 40,000,000 barrels of kerosene, and the 170,000,000 barrels of fuel oil that will probably be produced this year."

Referring to the "gasolineless Sunday," about which hitherto no figures have been available as to the amount of gasoline saved, he said:

"'Gasolineless Sunday' is a magnificent success, in that it has made it possible to load for France ten cargo boats of gasoline, of 50,000 barrels each, which otherwise could not have been shipped; *and that has been done by the voluntary effort of a free* people on the mere request of the Fuel Administration."

OUTPUT FOR WEEK OF SEPT. 21 TOTALS 12,650,000 TONS

For the week ending September 21 the bituminous coal production varied little from that of the week preceding. The output is estimated at 12,650,000 net tons. This is 4 per cent below the production during the week of September 14, but it exceeded the production of the corresponding week of 1917 by 19.4 per cent, or 2,060,000 net tons. The daily average during the current week is estimated at 2,108,000 net tons, which is slightly lower than the week preceding, but considerably in excess of the daily average during the week of September 21, 1917.

The strike in the anthracite fields during the week of September 21 caused production to decrease 11.5 per cent. The output is estimated at 1,847,000 net tons, as compared with 2,088,000 net tons during the week preceding, and as against 2,006,000 net tons during the corresponding week of 1917. The daily average during the current week is estimated at 308,000 net tons, considerably less than the daily average for the coal year to date of 337,000,000 net tons, which is 2.1 per cent in excess of the daily average of the same period of last year.

Bituminous coal dumped at Lake ports during the week ended September 21 amounted to 1,143,568 net tons, a slight decrease compared with the week preceding. However, compared with the weekly average during July, August and September, the current week's tonnage was 80,000 net tons, or approximately 8 per cent in excess.

ASKS FOR REVENUE ACT FAIR TO MINING INDUSTRY

James F. Callbreath Appears Before Senate Finance Committee to Urge that Inequalities Be Taken from the Bill.

In a plea for a more equitable revenue law, James F. Callbreath, secretary of The American Mining Congress, appeared before the Senate Finance Committee. A portion of Mr. Callbreath's remarks on that occasion, together with a portion of the colloquy which arose, follows:

"Mining is a wasting industry. To the extent that it produces, it reduces the original estate. Its invested assets are continually growing less. It is peculiar in another sense, in that it is a short-lived industry and an industry carrying great hazards. All of the possible supply of minerals for all future time is now in existence. A mine with a life of ten years, each year sells one-tenth of its original holding. The proceeds of that sale appear to be a profit. That part of such proceeds which represents the value of the ore is not profit but rather a transfer of property from one form to another, i. e., a sale of one-tenth of the estate.

"I call attention to these peculiar conditions concerning the mining industry, as a basis for some concrete illustrations which I believe will aid your committee in reaching a conclusion as to how the mining industry can be made to pay its full share of the tax required and at the same time so apply this tax as to stimulate that high production of the minerals which are necessary to the effective prosecution of the war.

"Every business to be profitable must be able to earn a reasonable return on the capital invested and during the time of its operation pay back the original expenditure. This rule applies to all lines of business alike. A business which is continuous in its operation has a longer period in which to amortize its investment. The shorter lived the operations, the larger must be the amortization fund. A zinc mine in the Joplin district has an active life of approximately two and one-half years, i. e., a mill by two and one-half years of continuous operation can prepare for market all of the ore within economic hauling distance. A mill with no ore may be worth for removal elsewhere 10 per cent of its original cost. It follows that to make a zinc mine profitable it must be able to earn approximately 50 per cent annually for two and one-half years, to pay back the original investment and a reasonable profit thereon. Such a company must be permitted to amortize the original investment during the life of its operation. Otherwise a war profits tax or an excess profits tax, as provided by the bill under consideration, not only takes all of the profit but a considerable percentage of the original capital.

"Under the war profits provision of this bill deduction is limited to 10 per cent of invested capital (p. 57, Sec. 312, par. (b), subdivision 2); and under the excess profits method deduction is limited to 8 per cent (p. 58, Sec. 316).

"We believe that this deduction is entirely inadequate in all short-lived mines. To so levy a tax as to take the original investment under the guise of profits would be to paralyze many mining districts and shut off the supply of minerals needed for war and industrial purposes. The Joplin district has a population of approximately 225,000 people—175,000 of whom depend absolutely and entirely upon the zinc mining industry. Any condition which will prevent development of new mines will in a short time put an end to the industry. This would result, first, in a very serious injustice to the people who live there; second, it would make that community unable to pay a tax in the future; and, third, it would so disturb the zinc market as to bring great burdens to the Government because of the lack of an important war material. The Joplin-Miami district produces more than 40 per cent of the zinc of the nation. Before the war competitive conditions had depressed the market price of zinc below the average cost, and the production capacity of the zinc mines had been greatly decreased. During the early days of the war, because of the scarcity thus created, the price of spelter in the domestic markets went to a point above 30 cents per pound. To take from the market 40 per cent of our usual supply would necessarily increase the price to a point which would be very burdensome to the Government needing directly and indirectly large supplies of zinc.

"A mine or an oil well is a very different property from any other. Owners of mines and wells must seek, find, and extract their product from beneath the earth, and finding a commercially productive mine or well is so rare that many fail where one succeeds. The process of seeking and finding ore in a mine requires an immense expenditure for development work which is not carried to capital account.. In the case of a great majority of the smaller enterprises, each mine is owned by a separate company, and cannot add to the purchase price of its properties the expenditures for development work and losses sustained in proving other properties to be valueless, an advantage possessed by the large corporation.

"The investment needed to extract and reduce ore varies greatly with its mineral contents. When the ore is mined out the capital is absolutely gone. All these facts are taken into account by investors which, recognizing the hazards of these businesses, require an actual income of from 12 to 15 per cent to establish a market value of par, fully double the ordinary interest rates required. The Internal Revenue Bureau of the Treasury Department has recognized this distinction, and I believe it to have been as liberal as it could possibly be under the law in attempting to make the present law meet the governmental requirements without exacting from owners of mines and wells a greater tax proportionately than other lines of business. The peculiar nature of mines and wells is not fully recognized in the bill under consideration. It defines their 'invested capital' just as that of other corporations, giving them no benefit whatever from the discovery and development of new ore bodies.

"So far as mines are concerned, the definition of 'invested capital,' Section 325 of the present bill sets a premium on the discreditable devices of the past twenty years intended to work out and inflate book values as the basis for the issue of watered stock, while legitimate mining companies of many years' standing, which have charged off their expenditures against operations on the theory that a mine is a wasting property, will be penalized for having done so.

"I desire to call attention to one provision of the present law which has worked much of injustice to small companies and possibly has lost the Government much larger sums, which overcapitalized companies have escaped. Section 326 of the proposed act, subdivision 'a,' subsection 2, contains the following language: 'But in no case to exceed the par value of the original stock or shares specifically issued therefor.'

"To limit 'invested capital' to the par value of the stock taken in exchange for property at the time of its acquisition is peculiarly unjust in the case of the smaller mining companies which, in most cases, are organized to own a single mine after its promoters have spent large sums in prospecting and developing. These owners have in many instances acquired and developed a large number of worthless properties before they have developed a productive mine and have expended large sums to put this mine on a paying basis, not by sitting and watching it grow, but by the expenditure of large amounts of money, labor and energy. It has by this means increased the value of this property and should in all justice be permitted to utilize this increased value in determining its invested capital. Under this part of the section a company which issues stock conservatively in an amount less than the real value of the property would be limited to such amount even though the property had an actual value much in excess of the face value of the stock, while a corporation which was grossly overcapitalized at the time of the purchase of its property for stock would get the benefit of the increased value of the property up to the par value of the stock issued. This inequity is cured where stock is issued with no par value (Sec. 325, par. B, p. 61), but where the fiction of a corporation is used as a convenient means for dividing the interest of business associates and a share of stock represents a certain interest in the property of the corporation entirely uninfluenced by its face value, it seems entirely evident that this limiting clause cannot but work injustice. A specific instance will illustrate:

"A few years ago the executor of a New York estate, in order to divide among the heirs a mining property which could not then be properly liquidated, organized a corporation with a capital stock of $10,000 to which the mining property was transferred and divided the shares in proper proportions among the heirs. In the year 1916 that corporation paid taxes on a capital valuation of $2,700,000.

"Under a strict construction of the present revenue law and under the proposed law, the invested capital of this company upon which it could make deduction is limited to $10,000, while its actual invested capital is $2,700,000. Under the proposed law this company is liable to pay 8 per cent of $2,690,000, or $215,200 more than it would have been required to pay had its capital stock been fixed at the fair value of its property.

"It is understood that the revenue department, recognizing this injustice, has in some instances permitted this excess value to be treated as 'paid-in or earned surplus,' and by this device has avoided the unjust technical requirement of the law. But what assurance can be given that future Treasury officials will be as fair in the administration of the law as those who now serve in that capacity with so much of satisfaction to the public?

"It would seem, in view of the large latitude of authority given to the Treasury Department to fix the value of property where the face value of the capital stock exceeds the value of the property, that it can be relied upon to fix a fair value where the face value of the capital stock is less than the value of the property. In other words, the same power in the Treasury Department which is authorized to fix the value of the property of an overcapitalized corporation may be and should be intrusted with power to fix the value of the property of an undercapitalized corporation.

"It seems proper to also suggest that settlements made by the Treasury Department in good faith and where all the facts have been presented by the taxpayer should be considered as final settlements. It seems but fair to business interests after meeting all requirements to know that the matters are finally determined.

"The strict application of this provision is likely to work an equal injustice to the Government. Let us assume that a mining company had invested $500,000 in a property and that 75 per cent of its reserve had been worked out prior to January 1, 1917, so that during the taxable year the company had but 25 per cent of its original investment involved. During the year 1917 this company might have made an unusual profit, but under the provision referred to it would be permitted to deduct 8 per cent of the $500,000 originally invested, instead of 8 per cent upon the $125,000 actually invested.

"Much inequity has resulted from the custom of the revenue department in valuing ore bodies at the purchase price 'at the time of such payment,' as required in Section 326, line 10, page 61. The result of this is to fix different values upon property in all respects absolutely equal in value. Companies A and B own adjoining sections of land of equal but nominal value, for which they respectively paid $10 per acre. Each at an expense of $100,000 develop ore, oil or coal reserves worth $1,000,000. Company B sells its holdings to Company C for $1,000,000. Company A is entitled to a deduction of 8 per cent on cost of land ($6,400) and cost of improvements ($100,000), total $106,400. Company C is entitled to a deduction on cost of property of $1,000,000.

"This is an abstract illustration, but inequities of this sort will be found in many, if not all, coal districts. This grows out of the proposal that an ore body is worth just what it costs, without regard to the losses in the development of worthless properties, without regard to the hazardous nature of mine development, and without regard to actual value of the property. We submit that there will be a few gamblers at the table where most men lose and where the winner is immediately divested of the rewards of his lucky chance; in other words, that the development of new mining properties absolutely essential to maintaining our mineral supply will not be made except this inequity is provided for and the successful operator is allowed a reward proportionate to the hazard involved in his enterprise.

"I might say that if you desire it I would be glad to furnish you with numerous instances of coal mines located absolutely side by side, the properties absolutely the same in every respect, where one company is able to take out three or four times as much as the other."

Senator Penrose. Has not this matter of depletion in connection with mining companies been taken up with the Treasury Department and this Adams Commission?

Mr. Callbreath. Yes.

Senator Penrose. Have they ever come to any conclusion yet upon the subject?

Mr. Callbreath. Of depletion? They have administered the present law in a way that I believe has been counted fair by most of those who have settled with the Treasury Department.

Senator Penrose. Would not this general question you are touching on come under that process of adjustment in the department?

Mr. Callbreath. Except this, there is no assurance that a settlement made with the department under these provisions which does not conform with the law is a final settlement, and there is no reason why a future Secretary of the Treasury, or some ambitious politician who desires to make a name for himself——

Senator Penrose. There are none such around, are there?

Mr. Callbreath. There may be.

Senator Penrose. Not under the present administration, anyhow.

Mr. Callbreath. The fact is that there is no assurance that those settlements are final, and if a settlement is made and a deduction is allowed which the law does not authorize, then the people have no assurance that the settlement is final.

Senator Penrose. Then the mining interests are fairly well satisfied with the equitable adjustment made up to date on their taxes, are they?

Mr. Callbreath. As compared with the inequitable law under which the settlements were made. We believe the Treasury Department has done the very best they could to meet the situation, and has in some instances gone around the strict provisions of the law in order to do justice.

Senator Penrose. Then your only apprehension is that the settlement is not final, and that someone later on could ask for a readjustment of the tax?

Mr. Callbreath. That is true, and another reason is that in many instances one man will adjust himself to the strict letter of the law, while another man will apply to the Treasury Department and get a reduction, which works an injustice between the two parties.

Senator Penrose. Would there be any way of appealing these cases to the court, and if the court affirms the Treasury's decision, would not that be final?

Mr. Callbreath. I presume that would be true. Those cases are so numerous that an appeal to the courts of all those who might be aggrieved would burden the courts unduly.

Senator Smoot. You have been assessed upon interpretations of the law rather than the law itself?

Mr. Callbreath. Yes.

An extreme case will illustrate the absurdity of a strict application of this limitation.

Two men each own an undivided one-half of a certain property. These two ownerships were necessarily of the same value and earning the same income. Each of these men organizes a corporation to take over his holdings, each exchanging his rights in the property for all of the capital stock of the company which he organized. One organized a company with a large amount of capital stock. The other organized a company with a small amount of capital stock. The property earned a profit of 8 per cent upon the actual invested capital. One of these companies was obliged to pay a large excess profit tax, while the other pays no excess profits tax at all.

Another suggestion as to the proviso in Section 30, page 31, line 22. A tax of 12 per cent is levied against net income in excess of the amount distributed in dividends or paid in discharge of outstanding interest-bearing obligations, while profits not so utilized are subject to a tax of 18 per cent. This places a penalty of 6 per cent upon funds held either for necessary working fund or invested in Liberty Bonds.

We are expecting to place Liberty Bonds probably to the amount of $16,000,000,000 during the coming year A large part of these subscriptions, much the larger part, must come from the large business interests. Bonds bearing 4½ per cent are to be sold to these corporations and a penalty of 1½ per cent is levied against those who meet their patriotic duty. It would seem that this provision should be so amended as to permit corporations to hold necessary operating expenses and to purchase Liberty Bonds without the infliction of a special penalty.

It would seem that a distinction must be made in assessing a tax upon the earnings of an exceedingly short-lived enterprise, as compared with enterprises of longer life or permanent in their nature. A bill recently passed by the House of Representatives, H. R. 11259, known as the War Minerals bill, had for its purpose the stimulation of production of certain minerals necessary in war work, which heretofore have been imported from foreign countries, and of which there is now a shortage because of the withdrawal from foreign service of the vessels heretofore engaged in the importation of these ores. We have been importing above 2,000,000 tons of manganese, chrome, and pyrites from Brazil, New Caledonia, and Spain. These minerals are absolutely essential in the manufacture of steel and explosives. The fact that the supply of these minerals had heretofore come almost entirely from foreign countries affords some proof that these industries cannot thrive at home under normal conditions unless protected by compensating import duties. No one can predict what the tariff policy of the United States will be after the war. In consequence no one is justified in expending a large sum of money for the development of a mine or the construction of a treatment plant in order to supply a temporary market. If the demand for these minerals shall be terminated in two years, then it is plain that a plant now erected must amortize the original investment during these two years in addition to earning the ordinary profit. The deductions for depreciation cannot be made to meet the situation because at the end of the two years a plant might be at least 80 per cent, in which case a 20 per cent deduction for depreciation for the two years would be fair, but the remaining value would be entirely valueless unless market conditions justified continued operation.

I do not feel justified in suggesting that these enterprises shall be exempted from war taxes, but I do urge that full authority shall be given and that this revenue law shall anticipate that deductions for depreciation of plants engaged in short-lived enterprises shall be sufficient to amortize the cost of construction and development during the working period of the enterprise. Operations developed for the purpose of supplying these rare minerals which are needed for war purposes can be more nearly compared to the Government constructed housing facilities and plants constructed for war purposes only, which at the conclusion of the war will be practically valueless. These plants are constructed by the Government because private enterprise cannot possibly be induced to create these facilities for the short time during which they may be operated. The same principle applies to the short-lived mining operations and unless provisions are made for apparently excessive depletion deductions these enterprises cannot and will not be developed. The same reasoning should apply to all short-lived enterprises whether operations are to be terminated by the want of a market or by the exhaustion of the ore bodies.

Senator Penrose. You refer to this bill in the Senate. Does your association advocate that measure?

Mr. Callbreath. The association has not spoken on that subject.

Senator Penrose. From your knowledge of the general sentiment among your mining associates, do you think they are in favor of it?

Mr. Callbreath. They are very much in favor of the general proposition involved in that bill; that is, the purpose for which the bill is planned.

Senator Penrose. It carries $50,000,000, a small sum nowadays, but it is $50,000,000.

Mr. Callbreath. But not too much, if the Government shall undertake to purchase the supply of these minerals which are required.

Senator Penrose. Have you examined the bill?

Mr. Callbreath. Yes, sir.

Senator Penrose. Personally do you approve of the bill in its details?

Mr. Callbreath. I do not.

Senator Penrose. I only ask these questions, Mr. Chairman, because we know we are called upon, by grinding taxes, to raise this money from the taxpayers, and I think maybe we can make an incidental reference to some of the expenditures.

Senator Thomas. I think the question is quite pertinent.

Mr. Callbreath. I should be very glad to discuss that bill.

Senator Penrose. I personally should like to have some illumination on that.

Mr. Callbreath. My thought is that all of these minerals which are essential to the country at this time, which cannot be produced under ordinary conditions, should be provided by the Government in that way, and that those minerals can be produced. New enterprises cannot be created for a period of a few months or a year or two unless some plan is devised by which the cost of the plant can be amortized during the period of the life of that operation. That would be impossible under a two or three year plant, unless the amortization fund be very large. We have been importing from Brazil approximately a million tons annually of manganese ores. We have abundant supplies of manganese ores in this country but of low grade, and it will be necessary to treat that ore in order to bring it up to the high standard required by the steel industry, and the cost of the treatment and the development of the processes for treatment are expensive. It would be bad business for any private concern to undertake to build a plant and work out the processes of treatment and reduction for a market which two years from now could be taken away by cheaply mined ore bodies in Brazil, with a freight rate of $2 per ton to our shores.

Senator Penrose. Why, in this one crisis when labor is very scarce, is it not economically wise to purchase this material from Brazil, which is a nation with which we are at peace?

Mr. Callbreath. If we can get it.

Senator Penrose. You say we are getting it.

Mr. Callbreath. We have been getting it, but that supply has been shut off because the ships which have heretofore transported it have been put into foreign service.

Senator Penrose. Then this bill is in a measure to protect American industry at home?

Mr. Callbreath. I would not call it that.

Senator Penrose. It savors of that. It has that aroma.

Mr. Callbreath. It is a bill to develop industries at home which cannot stand after the war unless protection is afforded.

Senator Penrose. Then it is our duty during this war crisis to bolster up some defunct mining propositions so that they can stand on their feet after the war. Is that it?

Mr. Callbreath. No, Senator. My thought is that the low-grade manganese ores, running 15 to 18 per cent, of the great ranges in Minnesota, which can be developed to meet our requirements here at home, should be developed, and if I were to express my personal opinion, I would say that after the war is over such a protective tariff should be levied as to enable those activities to continue.

Senator Penrose. I heartily agree with you. But the present party in power disagrees with you.

GREAT INCREASE IN GASOLINE RECOVERY FROM NATURAL GAS

Statistics just compiled under the supervision of J. D. Northrop, United States Geological Survey, Department of the Interior, show tha tthe natural-gas gasoline industry in the United States made marked progress in 1917.

The quantity of raw gasoline recovered from natural gas in 1917, including that produced by compression, by absorption, and by vacuum pumps, as well as that saved as drips from gas mains was 217,884,104 gallons, a gain of 114,391,415 gallons, or 111 per cent, over the output in 1916. Of this quantity 168,921,555 gallons, or 77.5 per cent, was recovered by compression and by vacuum pumps and the remaining 49,017,549 gallons, or 22.5 per cent, by absorption and by salvage from gas mains. The combined product of gasoline obtained by compression and by vacuum pumps was greater than in 1916 by 83,998,768 gallons, or 99 per cent, and the product obtained by absorption and from drips was greater by 20,447,647 gallons, or 110 per cent.

The quantity of commercial gasoline represented by the output of raw gasoline in 1917, though not susceptible of accurate determination, probably amounted to more than 300,000,000 gallons.

The average price received in 1917 for the raw production at the sources of production was 18.45 cents a gallon, and the market value of the entire output was $40,188,956, a gain of 4.6 cents in average unit selling price and of $25,857,808, or 180 per cent, in gross market value as compared with 1916.

The volume of natural gas from which the output of natural-gas gasoline in 1917 was recovered is estimated to have amounted to about 429,000,000,000 cubic feet, and the average recovery of gasoline per thousand cubic feet by all methods was about one-half gallon.

The number of plants, including vacuum-pump plants, recovering gasoline from natural gas increased from 596 at the beginning of 1917 to 886 at the end of that year, a gain of 49 per cent, and the combined daily capacity of all plants increased during the same period from 495,448 gallons to 902,385 gallons, or about 82 per cent.

PRESIDENT TAKES DRASTIC ACTION TO STOP STRIKE

The letter of President Wilson to the striking workmen at Bridgeport, Conn., is regarded in Washington as the most significant development in labor matters since the beginning of the war. The letter follows in full:

"I am in receipt of your resolutions of September 6th anouncing that you have begun a strike against your employers in Bridgeport, Conn. You are members of the Bridgeport branches of the International Union of Machinists. As such, and with the approval of the national officers of your union, you signed an agreement to submit the questions as to the terms of your employment to the National War Labor Board and to abide the award which in accordance with the rules of procedure approved by me might be made.

"The members of the Board were not able to reach a unanimous conclusion on all the issues presented, and as provided in its constitution, the questions upon which they did not agree were carried before an arbitrator, the unanimous choice of the members of the Board.

"The arbitrator thus chosen has made an award which more than 90 per cent of the workers affected accept. You who constitute less than 10 per cent refuse to abide by the award although you are the best paid of the whole body of workers affected, and are, therefore, least entitled to press a further increase of wages because of the high cost of living. But, whatever the merits of the issue, it is closed by the award. Your strike against it is a breach of faith calculated to reflect on the sincerity of national organized labor in proclaiming its acceptance of the principles and machinery of the National War Labor Board.

"If such disregard of the solemn adjudication of a tribunal to which both parties submitted their claims be temporized with, agreements become mere scraps of paper. If errors creep into awards, the proper remedy is submission to the award with an application for rehearing to the tribunal. But to strike against the award is disloyalty and dishonor.

"The Smith & Wesson Company, of Springfield, Mass., engaged in government work, has refused to accept the mediation of the National War Labor Board and has flaunted its rules of decision approved by presidential proclamation. With my consent the War Department has taken over the plant and business of the company to secure continuity in production and to prevent industrial disturbance.

"It is of the highest importance to secure compliance with reasonable rules and procedure for the settlement of industrial disputes. Having exercised a drastic remedy with recalcitrant employers, it is my duty to use means equally well adapted to the end with lawless and faithless employes.

"Therefore, I desire that you return to work and abide by the award. If you refuse, each of you will be barred from employment in any war industry in the community in which the strike occurs for a period of one year. During that time the United States Employment Service will decline to obtain employment for you in any war industry elsewhere in the United States, as well as under the War and Navy Departments, the Shipping Board, the Railroad Administration, and all other government agencies, and the draft boards will be instructed to reject any claim of exemption based on your alleged usefulness on war production."

FUEL ADMINISTRATION HAS SERVICE FLAG WITH FIFTY STARS

A service flag, bearing fifty stars, each star representing a former Fuel Administration employee now in active service, was hoisted on the building of the United States Fuel Administration with appropriate but simple ceremonies. In the presence of nearly one thousand employees the flag was hoisted, and Fuel Administrator H. A. Garfield, two of whose sons are also in the service, made a brief speech.

In speaking of the boys who are serving in the front trenches, Dr. Garfield took occasion to remind his hearers that they, too, were on active service helping to win the war. He cited the case of the American soldier who in writing home referred to the relative inactivity of the front line trenches as compared with the work of those at home who provided the necessary supplies, and he pointed out that it was the portion of those of us left behind to serve and, in a measure, fight as faithfully and as efficiently as those who actually bore arms. All of us who do our duty are in active service. The glory and honor of winning this world war was not all, he opined, for the soldier on the fighting line, but was to be shared by those industrial soldiers, the workers for Government, the miners, the shipbuilders and the munition makers, upon whose fidelity to duty our forces overseas had to rely.

ARE WE FACING A COAL FAMINE?

By George H. Cushing

The nation is on the eve of another winter, when attention naturally turns to coal. In only three winters in American history has coal been more than a matter of passing annoyance because it meant an additional expense. In 1902, in 1916, and in 1917 coal was a serious problem. In only one of those three years, 1917, was there ever a real shortage of coal.

In the afterwhiles, when we begin to discuss business in its broad phases, this one fact must be considered at its full worth. America has been producing coal for 110 years. Yet in only one of these was there a shortage. In 107 of those years there was always more coal than the people would buy. The coal industry has performed well when left alone.

Now we are at the beginning of another winter. What will be the situation this year? Will we have a fourth year of annoyance? Will we have a second year of shortage? Or will we drop back into the old deadly routine when there is more than the country needs?

Two incidents will probably answer that question, if we take pains to know what those incidents mean.

At the end of the third week in September the operators of the "Pocahontas" district of West Virginia gave a dinner at Bluefield to James B. Neale, the chairman of the Production Committee of the United States Fuel Administration. Before it was held there was a lot of running around the district in automobiles and a lot of exhorting to the miners to work more. At the dinner there was a speech or two which waved the flag and allowed the eagle to scream. But at the finish there was one statement by Mr. Neale which called upon the operators to produce 2,000,000 tons of this coal in October. This compares with a production of 1,410,000 tons in August, which was the largest output in the last two years. This means a gain,, demanded. of 42 per cent.

On the some day it was brought out that the Pocahontas district has lost 27 per cent of its miners in the last year and a half, and is not getting more.

The obligation is to increase coal production 42 per cent—on fifteen days' notice—with 27 per cent less miners. And the statement is that this coal is needed to make coke, to move ships, and to satisfy the demands of our allies. Judging by that figure, one would say that a hard winter is ahead.

On the contrary, in the last week in September, one of the shrewdest coal operators in the Mississippi Valley called his men together and said:

"Go out and take every order that anyone will give you for coal for delivery after the 15th of next February. The reason for that order is that every one out this way has an abundance of coal. There are stocks everywhere. But no one has any faith in the railroads. No one believes that the Fuel Administration really knows what the coal situation is. Therefore, every one will hold to the coal he has until the last minute. When the worst of winter is past they will dig into their stores. Then we cannot sell the coal which we will then be able to produce. I want to sell it now."

These two incidents tell the story. East of Pittsburgh the nation is terribly close to coal rationing. West of the Ohio-Indiana line there is more than enough coal. This looks like faulty distribution. This makes it seem that the zoning system on coal inaugurated with so much pomp as a saver of transportation—had proved a dismal failure. This seems to point a finger to the Fuel Administration and to say that artificial distribution is no safe substitute for the selective process of free buyers and free sellers. It may do all that, but the thing goes far deeper. One more incident will tell that situation.

When the Steel Corporation was formed it rested its demand for control of the steel market on nothing more than this: "We will have a complete steel mill at the door of every market." A few years later it astounded the steel trade by announcing that it was building one of its largest steel mills on the south shore of Lake Michigan—at Gary, Indiana. No steel man up to then had realized that there was a big steel market in the Middle West. This was a real disclosure. Meanwhile, other steel mills were built or enlarged at South Chicago and Indiana Harbor. There was another steel center at Joliet, Ill. There was a third at East St. Louis. In the same period Chicago built up a tremendous business in the fabrication of "finished" steel. It had an annual business valued at a billion and a half.

Last spring it was announced that 82 per cent of this steel from the Chicago district had been taken for war work. Since then the percentage has grown. But Chicago is not doing the fabricating. It is making more steel than ever, but it is doing less fabricating. The answer is that all the steel is going into the East.

On October 1 there was a meeting of coal men in Chicago. At that time a telegram was read. It had been sent by the Fuel Administration, and said that, apparently, there were less cars in the East than necessary and more cars in the West than were needed. Therefore, until further notice, one hundred coal cars would be taken every day from the West and moved into the East.

No time limit was set upon this diversion of equipment. It is going to continue until somebody says "Stop"—and that somebody may forget to say the magic word or be out of breath when the time comes. At any rate, every day enough cars are being diverted to subtract 5,000 tons of production from Illinois and Indiana and add 5,000 tons of potential production to West Virginia and Pennsylvania.

These two facts, if interpreted as they stand, mean that the Government is transferring raw material and transportation facilities from the West to the East. With that goes also the transfer of business. It is true, literally, that with the raw material and the business have gone and are going the workers. The Government is piling up business in the East by excavating business out of the Middle West.

Meanwhile the transportation lines of the East are not being expanded to carry this additional weight of raw material, of finished product, and of forage for the workers. No new railway lines are being built. Old railway lines are not being extended. No new terminals have been built. Indeed, they cannot be, for the simple reason that the territory is mountainous and new lines are not possible. All passages were availed of years ago. Also, the cities are so congested that new terminals are practically out of the question. That does not seem to have disturbed the Washington officials who are placing the government's orders. They continue to distribute their orders in the East. Those who have charge of labor, coal, and steel continue to try to pour them into that congested district so the munitions can be made.

All such matters have a natural and mathematical outcome. A camel can carry only so many blades of straw. A railroad can carry only so much freight. Pile on more, and you have a breakdown. That is what we are running into. The result is as inevitable as death.

Every man who has enough independence of spirit left to think for himself has seen the consequences of this policy for the last twelve months. He has known that a congestion of business would mean a congestion of the railways. He has known that a congestion of railways would bring—as it always has brought—the destruction of productive capacity. He has realized that the productive capacity of the East coal mines would be killed at the very minute when the reliance of the Army on those Eastern factories was the greatest. He has stood to one side, worrying and cursing, because he was powerless to stop the drift which seemed to be inevitable. It was impossible for the bystander to change the whole machinery of order-placing so that the nation's business would be distributed equitably over the nation, so that the whole people could produce for the Army as well as supply men and money to the Army.

But, while helpless, every man felt a little easier because there was still a surplus of coal production in Indiana and Illinois. Those two states are producing more than ever. The bystander saw that when the Eastern congestion has killed Eastern coal production there was still a chance that the Middle West could come to the relief. They could move some of their coal farther East and limit the suffering at home, even if they could not supply the Army in France with the fighting material it wants.

Now even that faint hope has been taken out of the empty lot and sandbagged. The cars which gave Illinois and Indiana their larger production are being taken away from the Mississippi Valley and are being crowded into the East to still further increase the congestion there.

Evidently the nation is short of coal for this winter and there is no hope of relief. Three years of practical experience with terminal congestions have not taught the American people a thing. We do not know—even after the heatless days of last January—that congestion kills production, and that the way to avoid congestion is to limit the traffic to the carrying capacity of the lines.

England might have taught us a lesson on that question if we had been willing to learn. She had a transportation problem. It was to get freight across the Atlantic. Rather than haul 7 tons of raw material in order to make a ton of finished steel on English soil, she used her precious ships to haul 7 tons of finished steel made on American soil.

If America had been wise, she would have said that rather than use her limited Eastern railroads to haul raw material she would use them to haul the finished product made, in part at least, in the Middle West.

But a democracy learns slowly. It may learn in time. But that will be too late for this winter. The season's disaster has been manufactured. It is now in transit, and will reach its destination with the first blizzard.

CHEMISTS' CAMP NAMED FOR NOTED MINERALOGIST

By order of the Secretary of War, the Training Camp for the Chemical Warfare Section, now under construction at Lakehurst, N. J., is designated as "Camp Kendrick."

This new camp is named in honor of Professor (Colonel, Retired) Henry L. Kendrick, LL.D., who, after considerable service as a commissioned officer, served as professor of chemistry, mineralogy and geology at the U. S. Military Academy from March 3, 1857, until his retirement from active service, December 13, 1880.

Henry L. Kendrick was appointed a cadet at the Military Academy from New Hampshire, Sept. 1, 1831; second lieutenant brevet, infantry, July 1, 1835; second lieutenant, April 1, 1836; first lieutenant, June 20, 1837; captain, June 18, 1846; brevet major of volunteers, for gallantry and meritorious conduct in the defense of Puebla, October 12, 1847; professor, Military Academy, March 3, 1857; brigadier general volunteers (declined) Sept. 23, 1862; retired as colonel, December 13, 1880, at his own request, having served forty-five years as a commissioned officer, and being over 62 years of age.

He received the degree of LL.D., March 3, 1857. He died in New York City, May 24, 1891. He had no leave of absence from 1863 to 1880.

THOMPSON PRESENTS CASE OF JOPLIN MIAMI DISTRICT

The contentions of the lead and zinc producers of the Joplin-Miami district in regard to the inequitable portions of the revenue bill were presented to the Senate Finance Committee by A. Scott Thompson, of Miami, Okla. He said, in part:

"What we urge is this, in our amendments, that we object very seriously to the definition of invested capital being limited to the cash paid in for stock and property exchanged for stock not to exceed the par value of the stock. We urge in the amendments offered by Mr. Callbreath that invested capital, not alone in mines but every property, pay the cash put in and the value of the property in the investment.

"I fail to see wherein there is any justification at any time for limiting the value of property to the par value of the stock. We have many small ventures in our district where the capitalization is nominal, not to exceed $6,000. Yet the property is worth a half-million of dollars, exchanged for the stock.

"Just one point that I wanted to raise with regard to the provision in the war profits provision which allows an old corporation actual pre-war earnings and a new corporation 10 per cent on capital invested. In my field 95 per cent, because of the short life of the property, are new operations. They have all come into production since the war. That is a very unfair discrimination against new corporations, because the old corporation in our field must make a great deal more than 10 per cent.

"We suggest in one of our amendments that new corporations be allowed the same credit that a representative corporation with a pre-war record that was similarly circumstanced secures. Justness requires that they have an equal credit. As a matter of fact, I have figured out in the present bill that all new corporations will fall under the war profits plan.

"Just one other feature that is particularly applicable to my state. Our constitution prohibits corporations owning real property outside of cities and incorporated towns. Just why that was done I do not know, but that is part of the constitution. That makes it impossible for corporations to own real property, own the fee, own possibly a mining lease excepting such as they are actually conducting operations upon. The result is that as the companies grow they are forced to form holding companies to hold their holdings, and then they develop a piece of property, usually not to exceed forty acres, to determine its minerals, and they organize a subsidiary company owned by the same men. I know some very good mines out there, and I know one organization that has these operating mines separately incorporated, the operating end of it. None of them is organized for more than $5,000 capital stock, par value—corporations that have paid as high as 6,200 per cent dividends in the last two or three years.

"This bill prohibits the filing of a consolidated return, although that is the original business owned by the same men in the same proportions. This bill at page 61 prohibits the filing of a consolidated return, and we certainly think that the system followed by the department in trying to carry out the present bill should at least be permitted. If, under the definition of invested capital, these operating companies are limited to the par value of the stock, say $6,000, with an 8 per cent return, which is $480——"

Senator Jones. Why do they put the capital stock at $6,000?

Mr. Thompson. Just as a matter of convenience. That stock is not for the market. It was just organized because it was an operating company, and they turned in their property there, that is worth several thousand dollars, for that stock. It seems to me that invested capital should consist of money paid in and property paid in and of course valued as of the day of its transfer.

DRIVE BEING MADE TO GET MORE WORKERS FOR MINES

Through its Mining Division the United States Employment Service of the Department of Labor has opened a drive to secure adequate working forces for the coal and war metal mines of the country.

The campaign will be handled by James Lord, Chief of the Mining Division of the Employment Service, who also is president of the Mining Department of the American Federation of Labor. E. B Chase general manager of the Berwind-White Coal Mining Company, of Philadelphia, representing the mine operators, and William Diamond, former statistician of the United Mine Workers and now an officer of the Employment Service's Mining Divison.

As the opening step a circular letter, signed by Director General Densmore, is being sent out this week to the secretaries of 3,500 locals of the United Mine Workers in all parts of the United States. Through the use of their transfer card records these secretaries are expected to report to the Mining Division of the Employment Service the names, addresses and present locations of all practical mine workers who to their knowledge have in the past few years left the mines for other work. As soon as the reports of transfers have been received from the miners' locals, the Mining Division of the Employment Service will get in touch with all those who have left the industry for less important occupations and by means of personal solicitations urge their return to the mines.

Restoration of miners to the non-unionized localities will be carried out through the cooperation of the Fuel Administration, which is placing at the disposal of the Employment Service the facilities of its organization for reaching non-union men who have left the mines for other occupations.

President Wilson's statement that the war program of the nation rests on the shoulders of the miner has focused attention on the present serious shortage of this type of war worker. Over 50,000 members of the United Mine Workers alone have joined the colors since the outbreak of the war. At least an equal number of miners have drifted into other occupations in the same period. This shortage must be made up by restoration to the industry of all qualified miners who have shifted to other occupations during the last few years. Mining is one of the most essential of essential industries and in accordance with the policies of the Department of Labor men must be found for it, even if this means large withdrawals from non-war occupations.

Contact has been established between the Mining Division and mine officials to insure that returning miners will be placed quickly, and for the purpose of directing the men where the need is greatest. The cooperation of the national and district executives of the United Mine Workers has also been enlisted for this service.

In connection with the campaign the following statement is issued by Director General Densmore of the Employment Service:

"The power of our Government and our people to bring the war to a successful conclusion depends in a large measure on the cooperation of the operating companies and the mine workers in stabilizing labor conditions and stimulating production. It is indispensable that labor be conserved in the mining industry. In no case should experienced mine workers retire from the mining industry to follow other pursuits, as it is highly essential by reason of the great demand for coal and minerals that every mine worker stay in the industry."

The Jeffrey Manufacturing Company announces the reopening of its Cleveland branch office, at 437 Leader-News Building, which will be in charge of Messrs. P. C. Dierdorff and C. B. Reed. Both of these gentlemen have had many years of successful sales and engineering experience in the manufacture and application of the Jeffrey products, and are especially qualified to take care of the constantly increasing demand for Jeffrey machinery in their territory as well as render valuable advisory service to customers in solving their elevating, conveying, crushing, and mining machinery problems.

LICENSE SYSTEM INVOKED TO CONTROL THE TIN TRADE

The War Industries Board is to take control of the domestic pig tin situation under a license system. The following announcement to consumers of and dealers in pig tin is made by T. G. Cranwell, acting chief of the Tin Section of the Board:

"All users and dealers in pig tin will be licensed, and a complete inventory of stocks on hand and contracts unfilled will be made, and, if necessary, supplies will be re-distributed to equalize same according to essential uses. Full details of licensing plan will be announced later."

In accordance with this decision of the War Industries Board questionnaires are being sent out to the 2,000 odd individuals and plants affected calling for the information, under oath, demanded by the inventory. On the facts to be thus gathered as to the actual supply of pig tin stocks and the unfilled contracts, and the manner and quantities in which the pig tin is being held the War Industries Board will decide whether essential uses demand an equalization of such stocks through re-distribution and a matching-up among the plants.

The Tin Section has been informed there is considerable uneasiness in the trade as to control by the War Industries Board of the pig tin situation, and it is the belief of Mr. Cranwell that announcement of positive plans of control will prove beneficial. He says that the control plan will affect only the users and dealers in pig tin, and that the public, which uses tin plate, will be benefited by the licensing system of control.

This action by the War Industries Board was forecast when announcement was made by B. M. Baruch, chairman of the Board, that an inter-allied pig tin pool had been arranged in conferences held in London between the L. L. Summers Commission, representing the War Industries Board, and representatives of Great Britain and other allied nations. Under this pool, which is in the nature of a beneficent monopoly, the world's supply of pig tin is allocated, and distribution is made among the allied countries according to the supply and their needs. The United States will get about 80,000 tons of pig tin, or approximately two-thirds of the world production. The War Industries Board will supervise the allowance to this country. All imports of pig tin, tin ores and concentrates, will be consigned to the American Iron and Steel Institute and will be distributed to the licensees through the United States Steel Products Company. Prices will be regulated by the War Industries Board and will be uniform and at a level that will encourage production in the tin mining countries, which are chiefly Great Britain and the Straits Settlements.

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COAL DISTRIBUTOR'S LICENSE SUSPENDED FOR SIXTY DAYS

The United States Fuel Administration is determined to stamp out, so far as possible, all profiteering on the price of coal. Distributors who are found guilty of obtaining or attempting to obtain prices in excess of that provided for by the government regulation are being dealt with severely.

The United States Fuel Administrator suspended for sixty days the license as coal distributor of W. H. Blight, of 109 East First Street, Elmira, New York. From September 23 to November 22, inclusive, this distributor of coal is absolutely prohibited from transacting business.

In this particular case it was found that the offender wrote on July 8 a letter to prospective customers suggesting that he could get them what coal they needed if they would pay him an additional twenty-five cents a ton. A copy of one of these letters came into possession of the Fuel Administration and reads as follows:

"I have just found out what is the matter with the soft coal business. People from your part of the country are down through there, paying more for coal than I am, and are getting all the coal. If I could afford to pay $0.25 above the last price you paid, which was $3.95 net, making it cost you $4.20 net, I think I could get you considerable more coal. I am not asking this for myself, for I expect to make my profit on the coal, and it is up to you whether you pay it or not. I am quite positive by giving this $0.25 or most of it to some of these small operators I can get you considerable coal. The way it would have to be paid you would have to pay for the coal at $3.85 net and on each bill we will make out a separate bill of $0.35 a ton salary bill. I don't want you to think this is a hold-up, for if you do, don't bother with it at all, drop it, as I have other big concerns buying of me, who would be very glad of this opportunity, and if you don't want it, of course I will put it up to some of them, for it is a perfectly legitimate proposition, and there is a lot of them paying it, and even more than this."

No evidence was found that the deals proposed by the offending distributor were consummated, so that instead of an absolute revocation of the license it was felt that a sixty days' suspension was sufficient penalty.

No Tin Containers for Candy

Joining in the campaign to save tin, steel and labor for war purposes, candy manufacturers of the country, through the Executive Committee of the National Confectioners' Association, which conferred with Food Administration officials, submitted recommendations for general conservation in the trade.

The committee advised that the use of all metal containers cease, after a period not greater than five months, during which present stocks of tin on hand or in process shall be used up. An exception is to be made in goods destined for overseas shipment to the Army, Navy, Red Cross or similar organization for which specifications require the use of tin containers. The Food Administration was requested to notify the trade.

Approves Metal Conservation Plans

Recommendations looking to conservation of tin, steel, labor and transportation have been approved by the Food Administration.

No item in the grocery list, the resolutions state, shall be packed in containers made wholly or partly of metal, unless it can be shown that the use of metal is essential to the preservation of the food. The change from metal to other containers is to be made as soon as possible, but syrups, oils and molasses are excepted from the provisions of the recommendation.

SMITH & WESSON PLANT COMMANDEERED BY GOVERNMENT

In connection with the announcement by the President that he has approved the taking over of the plant and business of the Smith & Wesson Company of Springleld, Mass., the following statement is authorized by the War Department:

The plant of the Smith & Wesson Company, at Springfield, Mass., manufacturing pistols for the War Department, has been commandeered under Section 120 of the National Defense Act, for the duration of the war and an officer of the Ordnance Department has been placed in charge of further operation of this industry.

This action was made necessary by the refusal of the Smith & Wesson Company to abide by the award of the National War Labor Board, rendered August 22, 1918. This is the only instance of a manufacturer under contract with the War Department arbitrarily rejecting an award by the agency set up by the President for the maintenance of industrial peace during the war.

The War Labor Board's finding in the Smith & Wesson case was made upon a recommendation by Joint Chairman Frank P. Walsh and Frederick N. Judson, acting Joint Chairman in the absence of Mr. Taft. The Walsh-Judson report recommended that the company discontinue, for the period of the war, its practice of compelling employes to sign individual contracts, one clause of which bound the employes not to join a trade union; that the right to join trade unions be extended to the workers and that a system of collective bargaining be established in the Smith & Wesson plant. Under the operation of such a system the workers elect shop committees to represent them in negotiations with the employer on all questions of industrial relations. The demand of the workers for a 25 per cent increase in pay was not conceded in the recommendation, it being stated that the question of wages could best be worked out through the operation of the collective bargaining system. These recommendations were duly approved by the War Labor Board, and it became the duty of the Smith & Wesson Company, as well as its employes, to comply. The workers have indicated their willingness to do so, but the company demurred on the ground that it had not agreed to submit any of its legal rights to the War Labor Board for determination and that to comply with the award would be to abandon methods upon which it had built its business to a high state of efficiency. Further, in its letter rejecting the War Labor Board's findings, it said:

"The Smith & Wesson Company sees no reason why it should abandon its lawful and legitimate method of doing business known and proved by it to be conducive to industrial peace and high efficiency for the fantastic method outlined by the War Labor Board in its recommendations for dealing with its employes."

A strike at the Smith & Wesson plant involving demands for collective bargaining, the right to join trade unions and the elimination of the indivdual contract, were the direct cause of government intervention in the controversy between the company and its employes.

The language employed by the company in the foregoing paragraph was held to be calculated to induce other employers to avoid the jurisdiction of the War Labor Board and to defeat the object of the President in its creation, and the company's general attitude toward the reasonable findings of the Board was deemed such as might be expected to disturb industry and to interfere with production.

The recommendations contained in the War Labor Board's findings are in thorough accord with the principles and policies to govern industrial relations for the period of the war promulgated by the President and made the constitution of the War Labor Board. These principles and policies were adopted by duly selected representatives of organized employers and workers of the United States. It is the policy of the War Department to give effect to the decisions of the War Labor Board in all cases coming under the jurisdiction of the Department.

ASKS THAT HAZARD OF OIL BUSINESS BE CONSIDERED

Judge John J. Shea, of Tulsa, gave the Senate Finance Committee the benefit of his study of taxation as applied to oil in an extended statement. Brief extracts from his remarks are as follows:

"I know of a case under the old law where two concerns purchased property in adjoining sections, one concern capitalized at $20,000 and the other at $50,000,000, and they purchased exactly the same amount of land, and the $50,000,000 concern did not pay any tax, under the old law, and the other concern under the law would pay $600,000. They produced the same amount of oil. Now, these are inequalities. We only complain of the inequality. We do not care anything about the rate of taxation you put on us at all, so long as we can live and get through and keep going and are put on an equality with other industries. We do not want to have our business stopped. In conversation with Mr. Requa the other day—I presume he will be before you; he is the oil man of the Fuel Administration—he said that the result of this tax will be that it will not dry up the source of the oil, but it will result in oil being produced by the larger companies that can spread their losses over the whole field, and the smaller operators will be driven to the wall, and in the happening of the very thing that the Government has sought to prevent, namely, the gathering of all these great properties into the hands of a few large concerns.

"I am producing oil notwithstanding that I am paying a tax of 80 per cent, and I can drill a new well in a new field and get a lot of oil out of it, but the moment I do that I will immediately have to pay 80 per cent on that new well to the Government, and at the end of the war I will have neither money nor property left. What would be the natural thing for a man to do under those circumstances? He would naturally let the oil stay there. He will not do this under existing conditions because he is going to produce and let the Government have all of the oil that is necessary for its purposes; but they may not be all patriotic enough to do this, and the supply must be kept up and the burden will fall on the most patriotic. We are going to stand for whatever you gentlemen in your wisdom see fit to do; but we do ask that you give consideration to our business in the matter, not for the purpose of escaping taxation, but in order that it may be justly taxed; and in doing that we believe you ought to take into consideration the risk and hazard of the business.

IRON ORE PRICES CONTINUED UNTIL END OF THE YEAR

The President has approved the agreement made by the Price Fixing Committee of the War Industries Board with the representatives of the iron ore, pig iron and steel interests, that the maximum prices now prevailing on iron ore, pig iron and iron and steel products be continued in effect for the three months ending December 31, 1918, with the following exceptions:

1. Lake Superior iron ore.

Base prices of Lake Superior iron ore delivered to lower lake ports are increased 25 cents per gross ton on and after October 1, 1918, subject to the following condition: These increased prices are based on the rail freight rates now in effect and on the present lake rates, and in the event of any increase or decrease in either rail or lake rates said prices shall be increased or decreased accordingly on all deliveries made during the continuance of such increased or decreased freight rates.

2. Pig iron.

The base price on basic iron is increased to $33 f. o. b. furnace. The base price on No. 2 foundry iron is increased to $34 f. o. b. furnace. The price of standard Bessemer iron is fixed at $35.20 f. o. b. furnace. The above prices are subject to the following changes from previous practice as regards delivery:

(*a*) Pig iron produced in the Virginia, Tennessee, and Birmingham districts and the scattering districts south of the Ohio and Potomac Rivers, including furnaces at St. Louis, Mo., but not including furnaces bordering on the Ohio River, shall be sold on an f. o. b. Birmingham, Ala., basis.

(*b*) Pig iron produced in the eastern district, *i. e.*, from all blast furnaces located east of the Allegheny Mountains and north of the Potomac River, shall be sold on an f. o. b. Pittsburgh basis.

(*c*) Pig iron from all other producing districts or furnaces shall be sold f. o. b. furnace as heretofore.

No new contracts calling for delivery of any of the above commodities or articles on or after January 1, 1919, are to specify a price unless coupled with a clause making the price subject to revision by any authorized United States Government Agency, so that all deliveries after that date shall not exceed the maximum price then in force, although ordered or contracted for in the meantime. It is expected that all manufacturers and producers will observe the maximum prices now fixed.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of THE MINING CONGRESS JOURNAL, published monthly at Washington, D. C., for October 1, 1918

City of Washington,
District of Columbia, } ss

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared E. Russell Coombes, who, having been duly sworn according to law, deposes and says that he is the business manager of THE MINING CONGRESS JOURNAL, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of Publisher—The American Mining Congress
Postoffice address—Washington, D. C.
Officers:
Walter Douglas, President, 99 John Street, New York.
Harry L. Day, First Vice President, Wallace, Idaho
M. S. Kemmerer, Second Vice President, New York City
George H. Crosby, Third Vice President, Duluth, Minn.
J. F. Callbreath, Secretary.
Editor—J. F. Callbreath.
News Editor—Paul Wooton.
Business Manager—E. Russell Coombes.

2. That the owners are (give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock): The American Mining Congress—a corporation, not for profit. No stockholders.

3. That the known bondholders, mortgages, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are (if there are none, so state): None

E. RUSSELL COOMBES,
Business Manager

Sworn to and subscribed before me this 1st day of October, 1918.

(Seal.) THOMAS C. WILLIS.

(My commission expires February 20, 1922.)

INDIVIDUAL RESPONSIBILITY PLAN IS OUTLINED

Dr. Garfield in Proclamation to Coal Industry Tells How Each Person Engaged in Coal Mining Must Have Share in Responsibility.

Individual responsibility, applying to every person engaged in the production of coal, is the keynote of a proclamation addressed to all connected with the industry by H. A. Garfield, U. S. Fuel Administrator, setting forth the urgent need of a greatly increased output for the next six months. Mr. Garfield directs attention to the enlarged requirements of the country, due to the necessity of meeting the needs of domestic consumers and keeping pace with the constantly enlarging fuel demands due to the expanding military program of the nation.

The message recognizes the fact that the production in the last three months, in spite of a shortage of labor, has been larger than had been counted on and gives praise to the miners, operators, production managers and all others whose efforts have contributed to that result.

The individual responsibility plan, as outlined by Mr. Garfield applies to every district production manager, to every coal operator, to every mine superintendent and all others engaged in supervising work and, perhaps most important of all, to every man engaged in the actual labor of mining coal. The Fuel Administrator calls for the maintenance of an established set of weekly quotas from now until March 31 next. It is recognized that this is the period when production is most difficult, owing to weather conditions, but this very fact makes it the more imperative that every possible effort be put forth with might and main to keep the supply up to the figures of the weekly quota.

Each mine is called upon to produce its equitable share of the weekly quota. This share is based on present conditions and previous results at that particular mine. Each miner will be expected to mine his proper proportion of his mine's quota.

The necessity for an enlarged supply is particularly pressing in the bituminous fields. The output required of the soft coal mines between now and March 31 next is 12,234,000 tons per week, as compared with a production of 10,503,000 tons per week for the same period of last year. This is an increase of approximately sixteen and one-half per cent.

Anthracite mines are called upon to produce 2,030,000 tons per week as compared with 1,909,000 tons in the same period last year. This is an increase of approximately six and one-third per cent.

These additions to the output, as compared with last year, are imperatively necessary because of the expanding war program of the nation, and to assure adequate supplies for American factories and American homes. There must be more coal supplied for the next six months, in spite of the increased production in the last three months. Mr. Garfield recognizes the result of enlarged effort during the last three months in these words of praise for the miners and all others connected with the industry:

"I recognize, as you know, that through your patriotic efforts the production of coal during the last three months has far exceeded our earlier expectations."

More coal, still more coal and then more coal on top of all that, is a fair summary of the demands being made upon the Fuel Administration. The heavily enlarged supply must be forthcoming if the fuel needs in connection with America's vast military program are to be met without stinting the allotments for domestic consumption through the winter months.

In the preparation of the working basis for carrying to success the weekly quota plan it is asked that minimum production figures be set for the various mining districts, and the district managers have been requested by James B. Neale, production director, to apportion, in consultation with their local mine committees, the share of each mine in supplying the required tonnage of coal each week.

Officials of the Fuel Administration are confident that every miner will volunteer to produce his proper share each week, this share to represent his equitable proportion of the quota allotted to his mine.

District production managers will take steps to arouse sentiment in coal mining communities to the patriotic necessity of each mine maintaining its weekly quota in the next six months.

Mr. Garfield's message reads thus:

"To all persons engaged in the mining of coal:

"The growing requirements of the nation's military program and the essential domestic demands for the coming winter can be met only by a large increase in the average weekly production of coal during the next six months, as compared with the coal mined during the corresponding period of a year ago.

"The bituminous tonnage between now and March 31 next must average 12,234,000 tons per week, and the anthracite tonnage 2,030,000 tons per week. During the same period last year the weekly production of bituminous was 10,503,000 tons and of anthracite 1,909,000 tons.

"I recognize, as you know, that through your patriotic efforts the production of coal during the past three months has far exceeded our earlier expectations.

"The practical response you have made to the urgent appeals of our production director, Mr. James B. Neale, has been particularly gratifying because the number of miners and the facilities available have naturally been restricted by other war activities.

"Under the circumstances your increase to date has been splendid, but the figures now show that, if all necessary demands are to be met, the time has come when there must be a further intensification of effort on the part of all of us. In fact, I believe that the time has come for a definite allotment of individual responsibility.

"If each one of us will get under the load, voluntarily carrying his portion of it, there will be no difficulty in reaching our goal.

"The mines are an essential part of the nation's battle line. It is only by attaining our objectives at the mines that we can attain completely our objectives elsewhere.

"I have therefore requested the Director of Production, in consultation with the district managers, production committees, miners and operators, to figure out and establish weekly production quotas for each individual mine quota which, added together, will give us all the coal needed this winter.

"These quotas can be assured only by the definite pledging of each miner to assume his equitable portion of his mine's allotment.

"It will greatly hearten our forces abroad to learn that every miner has volunteered to carry out his part in this definite program and has personally assumed responsibility for a weekly coal production representing his proper individual contribution toward the winning of the war."

Coke Prices Reduced

Reciting the fact that contracts for high-priced coal have generally expired, that the supply of coal is more regular and that the price of coal has been reduced 10 cents a ton, an order has been issued by the United States Fuel Administration making a flat reduction of 30 cents a ton for coke produced in by-products ovens, except in the states of Alabama and Washington.

Under the order, the base price for by-product coke is fixed at $5.70 for run of ovens and $6.70 for selected foundry, which is a reduction of 30 cents per ton from the former base price. Except where otherwise provided, the maximum prices, f. o. b. cars at point of production, for each grade of by-product coke shall be the sum of the base price for such grade, and the freight rate from the competing bee-hive coke district which takes the lowest freight rate to the point where such by-product coke is produced.

The order establishes a price for by-product coke in Alabama which takes into account the reduction of 30 cents, and which is made to correspond with the advance in wages due to the advance in the price of coal on May 15. The original classification of coal districts in Alabama caused some confusion in adjusting the prices of coke. Recently the Alabama coal fields have been reclassified, and the new coke prices for that state are brought into harmony therewith.

The price adjustments were made under direction of the Coke Bureau of the United States Fuel Administration, and have involved a painstaking investigation of an intricate subject. The prices fixed are based on the new prices for coal and the classifications of coal districts in the order of August 22, 1918, with reasonable allowances for conversation, selling, depreciation, contingent reserve and profit.

HOPES TO FORESTALL SHORTAGE OF KEROSENE

As a precautionary measure to forestall an impending shortage of kerosene during the coming winter, the Oil Division of the United States Fuel Administration has issued the following letter to all refineries throughout the country:

"I am convinced it is absolutely necessary that the kerosene production of the country should be materially increased. Statistically, kerosene is in a more unsatisfactory position than gasoline or fuel oil. We have not heretofore felt the acuteness of this situation because of the summer season through which we have just passed. Now, however, we are approaching the season of maximum kerosene consumption and unless steps are taken immediately to provide increased supply we shall undoubtedly this winter face a shortage much more acute than we have as yet experienced in any of the petroleum products.

"The statistics now in the hands of your subcommittee show clearly the decrease in the percentage output of kerosene by practically all refineries. The situation as a whole shows decrease in barrels produced and a very large increase in domestic consumption which fortunately has been offset by a decrease in exports due to lack of tonnage for overseas movement. This export movement is now increasing, and the winter will soon be upon us. I request, therefore, that you communicate with each refinery, forwarding them a copy of this letter, and urge upon them the absolute necessity of increasing their kerosene production to the fullest extent possible, at least to a percentage amount equal to that of last year."

New Fuel Administrator for Idaho

Fuel Administrator Garfield announces the appointment of C. C. Anderson, a prominent merchant operating a chain of stores at Boise, as Federal Fuel Administrator for the State of Idaho. He succeeds Frank R. Gooding, who, having entered the race in his State for United States Senator, could no longer serve with propriety as a government official.

EIGHT DAYS OF COAL MOVEMENT EQUALS YEAR'S TONNAGE OF WHEAT

P. B. Noyes, Director of Conservation, of the United States Fuel Administration, in an address before the annual convention of the National Association of Stationary Engineers, at Cincinnati, Ohio, said in part as follows:

"It is estimated that the needs of the war call for at least one hundred million tons more coal this year than in 1917 and two hundred million tons in excess of that provided in 1914, the year the war started. As figures this does not sound difficult, but when we consider that this increase must be produced by a lessened man power and a railway system very little improved since the war started and taxed with inconceivably large demands from every war-making department, and when we picture this increase of coal as being four-fifths as much as was excavated during the sixteen years of the building of the Panama Canal, you will realize that we have a problem out of range of any other.

"These war needs must be met by the most intensive work in three directions: first, the increase of production; second, through conservation, through saving in every possible way; and, third, by a distribution system which shall insure against 'lost motion,' which shall fit our cloth exactly to the pattern.

"The Fuel Administration has been putting its most intensive work on increasing the production. This is evidenced by the fact that, while every European country has decreased in coal production since the war began, the United States mined fifty million tons more coal during its first year of war and will increase that by another fifty million tons this year.

"In almost any other line of activity the enterprises and energy of America is looked to to make good, no matter what the figures. Coal alone is of too huge bulk to be increased to any extent quickly. You must remember that 52 per cent of all railway cars loaded with coal, a tonnage equal to the great cotton crop of the United States is moved every 1 1-3 days, every eight days we are mining and transporting as great a weight of coal as the entire wheat crop of the United States. Our miners go deep into the earth and painfully bring up a tonnage of coal, and our railroads transport it an average of 300 miles every year, equivalent to 2¼ Panama Canals. We have fewer men in the coal mines than two years ago and will mine one hundred million tons more than then.

"The Conservation Bureau has organized, as you know, power, light and fuel conservations, going into every industry in the United States in addition to intensive work on domestic consumption. The figures coming in already are very encouraging. We have set a quota of thirty-five million tons to be saved in the boiler and power houses of industry and fifteen million tons in the homes. If this can be accomplished, the gap between our increased production and the much greater increase of demand will be filled.

"Distribution is perhaps organized in the Fuel Administration more thoroughly than any other part of the work. Every week the distribution department lays on Mr. Garfield's desk a statement by districts, by states and as a nation, showing the amount of coal produced during the week before in all of the ten thousand or more mines, also a statement of the amount consumed taken from the postal card reports, with which you are familiar; and, lastly, a statement of the amount of coal on hand, adding together the stock piles of every industry and every dealer in the country. With this information the streams of coal can be directed intelligently, shifted from time to time and made to do all the work permitted by the coal mined.

"But in the present crisis of the war with success depending upon steel, and steel depending upon coal, no ingenuity, rules or efficient administration will save us without practically 100 per cent cooperation from the people of the country.

"We sometimes complain that the business men give us only a part of the cooperation we should have; that their attention is still divided by personal interests. I have found, however, in a year's association with the business interests that it is only necessary that men like yourselves should know what we know in Washington—should see the meaning of a shortage of coal for the war as I see it every day in my connection with the War Industries Board, to get a cooperation which will ask only that it be told what sacrifice will really help.

"On March 21 Germany taught the world a new military science—that an overpowering weight of munitions and shells, guns, tanks, aeroplanes, etc., will bring success with a minimum of casualties. Germany got together a supply of all these munitions beyond anything the world had ever seen before. The Allies have profited by this experience. Guns, shells, and everything else contributing to the saving of lives are being forwarded to France in unbelievable quantities. The program is founded on demonstrated fact that if you have shells to waste lives can be saved. From now on it is munitions against casualties.

"If you keep this in mind you will have the background for the sternly drastic attitude of the Government during the next six months in clearing the way for filling Pershing's orders.

"Gentlemen, we are facing a catastrophe. It is not one of those catastrophes which makes such a noise that everyone knows when it happens. It is a silent tragedy. We cannot fill Pershing orders in full because the United States cannot make sufficient steel this winter. A shortage in steel results almost entirely from lack of coal. Keep this in mind and then look forward to the events of the coming spring. We shall have the drive. We shall suceed in it, but some time in February or March, or whenever the time has come, General Pershing will sit down with a pencil in hand, will figure up the exact deficit in the filling of his orders for munitions. With military formulas now well recognized he will figure in place of those munitions how many extra men must be put into the battle to be killed. This is no fanciful statement. It is now possible to treat, in any agressive movement, the question of munitions or of casualties as interchangeable quantities. So many thousand American youths must be thrown into the hopper for every thousand tons of munitions which are short.

"With this background I know that discussion with any man present of wastage of coal or of coal to be used for any industrial or economic consideration would be very one-sided. You will go just as far as any of us in Washington in urging that no consideration be given to any economic compromise with the coal supply which balances civil prosperity against men's lives.

"This statement of the case sounds tragic, but the worst of it is that it is terribly true, so true that I feel confident if every American business could see the actual facts as they come to us in Washington, there would be no need of regulations or rules, only directions. No man here would spare himself either labor to save the last pound of waste or the sacrifice involved in devoting the fuel and material he needs most to helping to complete the Pershing program."

BUREAU OF MINES' WORK ADDS TO PETROLEUM PRODUCTION

By urging the cementing of oil wells in the North Cushing field of Oklahoma, in order to keep out the detrimental flow of water, experts of the Bureau of Mines, Department of the Interior, have succeeded in increasing the production of oil from fifty wells more than 2,000 barrels a day.

Aside from the commendable saving of 2,000 barrels of oil each day for war uses, this lesson in practical conservation will add $4,500 a day to the operators' gross income, and if the increased oil yield continues for one year, a not over-sanguine expectation, there will be an addition of more than three-quarters of a million barrels of oil for war purposes and $1,640,000 more in the pockets of the operators.

It is estimated by A. A. Hammer and V. L. Conaghan, the Federal oil and gas inspectors for Oklahoma, who have charge of this campaign, that the total cost of excluding the water from the fifty wells was $10,000, which means a return of about $165 for each dollar invested.

Secretary of the Interior Lane, commenting on the report from the field, said: "This is the kind of practical conservation that counts heavily just now. It not only is saving from waste one of the most precious natural resources with which this country is blessed, but is also supplying much needed fuel for the Army and Navy. At the same time it is paying the operators handsomely to increase the flow of their wells.

"It happens that the crude oil from Oklahoma contains much gasoline. An increase of 2,000 barrels of crude oil a day means 500 barrels of gasoline a day, or more than 7,500,000 gallons in a year's time. This saving alone, from this restricted field in Oklahoma, is sufficient to drive every automobile in the United States an average of twenty miles, and there are five and a half million automobiles in the country.

"The best of it is, this is but the beginning of an enormous saving of crude oil by keeping the water out of the wells. It has taken the bureau two years to demonstrate the feasibility of using cement in the Oklahoma wells, but now that such a saving can be effected it is being adopted by all progressive oil men. I understand that the bureau has already started a campaign in the Healdton field, Oklahoma, and that, while it has not yet received a report of the actual results, it is estimated that the saving in this field amounts to more than 300 barrels of crude oil a day. In Illinois the same plan is being introduced, so that the Bureau of Mines is confident that the total savings to the country will be considerable and will go quite a distance in supplying our urgent war needs.

"In normal times, without a war for civilization on our hands, we would hail the men who are accomplishing this as benefactors of mankind."

MINERS AND OPERATORS GETTING CLOSER TOGETHER

Soft coal production is climbing. While the United States, as a whole, is not yet up to the output which is needed to carry on war work and civil life at the desired speed, the tonnage is steadily getting closer to the mark set.

According to M. D. Edmonds, who is assisting James B. Neale, director of production, United States Fuel Administration, the coal output is growing because miners and employers are working in closer harmony for one purpose—greater production of clean coal. The Bureau of Production, United States Fuel Administration, has worked out a system of production committees to be established at each mine. In brief, this system contemplates a mine committee, representing both workers and employers, who will spur the laggards and learn why men are idle when they should be working. The plan is designed to be purely one of exhortation, example and moral suasion, and even partial tests are already proving its soundness.

TRUE PATRIOTS WILL REPORT FOR WORK EACH DAY, SAYS NEALE

At a large meeting of operators, mine managers and mine workers, held at Greensburg, Pa., September 21, James B. Neale, Director of Production, United States Fuel Administration, spoke, and, among other things, he said:

"The essence of maximum coal production is efficiency, and this cannot be had without hearty cooperation between the mine workers and the mine management. Each group must do its best along its own well-defined lines, but it must also strive to help the other, both by actual deeds and by pointing out ways for improvement. Suggestions and constructive criticism must be given and accepted in a true spirit of cooperation and with no thought of anything save increased production.

"If the men making up the mine management are true patriots, they will be only too glad to know wherein they have failed to do their full duty in providing ways and means for maximum output. They will accept cheerfully criticisms and suggestions from anyone who is in a position to know what the actual conditions are, and they will do their utmost to remove every abstacle which may prevent any worker from working eight hours each day in the most efficient way possible. Too often tonnage is lost due to neglect or carelessness concerning which the mine management has no knowledge. Such things should be brought to the attention of the proper officers, and they should be glad to have their attention called to them so that corrective measures may be taken. No wise, loyal superintendent or foreman will resent having facts regarding bad conditions brought to him, but, on the other hand, he should be grateful to have knowledge which will enable him to more effectively do his part in the great struggle now going on in France.

"If the men making up the body of mine workers are true patriots, they will report for work each working day, and will do their utmost to increase production. They will take great care to see that they neglect nothing which will create an obstacle to their own work or to the operation of the mine in general. Too often tonnage is lost through the failure of one or more workmen to carry out promptly and properly the instructions given him. Production depends not only upon a well-thought-out plans and proper orders given, but also upon the proper execution of these plans and orders. The mine management can order a branch laid or cars and timber delivered, but it cannot do all of the work itself, and so is helpless unless each workman performs his duty.

"Now as never before we must have a hearty spirit of cooperation between the management and the men. Personality, petty spites and jealousies must disappear, and in their place there must spring up such a love of country and such a determination to win the great war for righteousness as will sweep aside all obstacles and will produce sufficient coal to meet every need. This is not the United States Government's war alone; this is not President Wilson's war alone; but it is also your war and my war. We have sent and are sending our boys to France, and we must provide them beyond question with everything which they need.

U. S. DYESTUFFS INDUSTRY HAS REMARKABLE SUCCESS

The remarkable success of the American chemists and chemical manufacturers in developing the dyestuffs industry, when the supplies of dyes from Germany were cut off, is strikingly shown in a report just issued by the United States Tariff Commission entitled, "Census of Dyes and Coal-Tar Chemicals, 1917."

At the outbreak of the European war, Germany dominated the world's trade in dyes and drugs derived from coal-tar. Before the war, seven American firms manufactured dyes from imported German materials. In 1917, one hundred and ninety American concerns were engaged in the manufacture of dyes, drugs, and other chemicals derived from coal-tar, and of this number, eighty-one firms produced coal-tar dyes from American materials which were approximately equivalent in total weight to the annual imports before the war. The total output of the one hundred and ninety firms, exclusive of those engaged in the manufacture of explosives and synthetic resins, was over fifty-four million pounds with a value of about sixty-nine million dollars.

Large amounts of the staple dyes for which there is a great demand are now being manufactured in the United States. A few of the important dyes, such as the vat dyes derived from alizarin, anthracene, and carbazol, are still not made. The needs of the wool industry are being satisfactorily met than the needs of the cotton industry.

The report gives in detail the names of the manufacturers of each dye or other product and the quantity and value of each produced, except in cases where the number of producers is so small that the operations of individual firms would be disclosed. Seventeen hundred and thirty-three chemists or engineers were engaged in research and chemical control of this new industry, or 8.8 per cent of the total of nineteen thousand six hundred and forty-three employees. The report also contains an interesting account of the history and development of the industry since the outbreak of the European war.

ALLIES AGREE ON POOLING PLAN FOR SUPPLY OF PIG TIN

Under an inter-allied pooling agreement reached by representatives of the United States, Great Britain, France and Italy at conferences held in London, which were attended by L. L. Summers, member and technical advisor of the War Industries Board and George Armsby, Chief of the Tin Section, each country participating in the conference will get its needed supply of pig tin. The action amounts to an international monopoly of a beneficent nature.

The plan of distribution worked out allows the United States about 80,000 tons of pig tin or two-thirds of the world's entire production annually.

With the War Industries Board supervising the allowance to this country all imports of pig tin, tin ores and concentrates will be consigned to the American Iron and Steel Institute which will receive, pay for and distribute the metal to the industry through the United States Steel Products Company.

The price will be regulated by the War Industries Board and will be uniform to all consumers of ten tons of pig tin or over. There will be another uniform price for users of less than ten tons. These prices will be maintained at a level which will encourage production in the tin mining countries—Great Britain and the Straits Settlements chiefly—and stop profiteering. Prices, rules and regulations will be announced later. It is probable that users and dealers may be licensed.

The War Industries Board believes there will be insured by these arrangements a steady supply of materials at a stable and reasonable price. Since the negotiations for the pooling arrangement began in London six weeks ago, the price of pig tin has fallen steadily. The quotation on September 6 last showed a net decrease of 14 cents per pound as compared with the price on July 15, 1918.

That there may be a sufficient supply of tin in the United States to meet the war needs and to supply essential civilian uses, vigorous plans for conservation of the metal are being made effective through cooperate efforts by the War Industries Board and by the Food and Fuel Administrations in the enforced substitution of other than tin for containers, wherever that is possible. Tin container manufacturers have agreed with the War Industries Board in plans that will curtail their use of tin plate 30 per cent, which means a saving in the next three months of about 150,000 tons of tin plate.

The Food Administration is working out a tin conservation plan with various industries, including lard and lard compound packers, wholesale grocers, cracker manufacturers, tea and coffee packages, cocoa and chocolate manufacturers and baking powder manufacturers. All have been urged to substitute fiber, paper or other containers where possible.

The Fuel Administration has taken up the subject with the oil dealers and the War Industries Board is working along similar lines with the tobacco manufacturers and all industries in which tin is used in turning out the finished product.

McADOO SAYS SAFETY IS AN IMPERATIVE NECESSITY

Director General McAdoo sent the following message to the National Safety Council Congress, which met in St. Louis:

"Conservation of the lives and health of our people is an imperative national necessity. To arouse leaders of all industries and to awaken all workers to this necessity is a work of vital importance. The old maxim, 'The safety of the people is the highest law,' has new importance in these days of human wastage. Never before have enlightened men realized the world importance of safeguarding in a higher degree than ever before the broad interests of human beings and the right of all, even the humblest, to live in freedom and in security, not only from oppression, but also from injury resulting from controllable causes. Your organized influence and your vigorous work for the protection of the lives and the safety of economic workers has the complete endorsement of all far-seeing men. Today man power means so much to the safety of the nation that the conservation of the health and the promotion of safety, not only of the workers on our railroads, but in all industries, stands as a patriotic duty as well as an economic necessity. Effective accident prevention work on all railroads under Federal control is, therefore, one of the important activities of the United States Railroad Administration. Please be assured of my earnest interest and sympathy in the important work you are doing and of my best wishes for a fruitful outcome of your deliberations."

GAS AND OIL INDUSTRIES PLACED UNDER LICENSE

The President's proclamation of September 25, governing licensees engaged in the business of importing, manufacturing, distributing and transporting crude oil, fuel oil, gas oil, kerosene, gasoline and natural gas, requires those engaged in the oil and natural gas industries to secure a license on or before October 1, 1918.

The Fuel Administration appreciates that in some cases it will be physically impossible for the required application to be made and the license to be issued prior to that date. Accordingly, it is announced that in all cases where application for license is promptly made, the applicant may continue his business pending final action by the Fuel Administration upon the application.

ONLY 10 PER CENT OF VALUE OF PETROLEUM IS RECOVERED

In view of the growing importance of gasoline and fuel oil in carrying on the industrial and military activities of the United States and its allies, a comprehensive survey of the petroleum situation will meet a widespread interest. The United States National Museum, Smithsonian Institution, has just issued a 74 page bulletin on this subject entitled "Petroleum: A Resource Interpretation," by Chester G. Gilbert and Joseph E. Pogue of the Division of Mineral Technology. This bulletin, which is freely illustrated with photographs and diagrams, gives a rounded view not only of the petroleum resource, but of the petroleum industry by means of which petroleum products are brought into use. The rapid exhaustion of the unmined supply of petroleum, the war needs for petroleum products, and the national importance of maintaining into the future an ample supply of motor fuel, are weighed against the limited nature of the resource and the wastes inherent in its present type of exploitation, and a plan is suggested whereby this vital resource may be conserved, by full utilization, with a gain in the service that petroleum may be made to yield. The subject matter is presented in a readable, non-technical form and is designed to enlist the interest of the public in one of the important resource problems of the day.

Mineral resources are coming more and more into prominence as the basis upon which modern advance is built. Their adequate development is a matter of the first importance, and public opinion will be called upon in increasing measure to shape the course of advance in this fundamental field. Petroleum is of peculiar value to society because it is the sole source of gasoline, the dominant motor fuel; provides kerosene, the most important illuminant outside of cities; and yields lubricating oil, upon which the wheels of industry revolve. In addition, it has come to be an essential fuel in the far west, where coal is lacking; is requisite to the operations of an oil-burning navy; and forms the starting point for an oil by-products industry, a branch of chemical manufacture still in its infancy and offering unlimited possibilities of development. In fact, it would not be an exaggeration to say that oil by-products represents one of the foremost industrial opportunities that confront the American nation today

The petroleum resource stands out because of its limited size and decreasing availability, the growing importance of its products, and the notoriously high percentage of waste involved in its mining. According to conservative estimates, scarcely 10 per cent of the resource value is recovered under present conditions, while the unmined supply now available in the United States is only about 70 barrels to the person. The presence in this country of extensive deposits of oil shale removes the danger of early physical exhaustion in respect to oil, but it does not necessarily insure a deferment of the period of economic exhaustion which is being prematurely rushed into the present by the current wasteful use of the limited petroleum resource.

A limited number of these bulletins are available for free distribution upon application in writing to the United States National Museum, Washington, D. C.

CLEARFIELD CORPORATION GETS OUT ADDITIONAL PRODUCTION

Definite progress has been made by the Clearfield Corporation in getting out the extra coal, which means extra shells and guns for the army in France. In May the output per day per miner employed was 4.30 gross tons; in June it was 4.80; in July, 5; and in August, 5.81, an increase of more than a ton and a half per day per miner employed. These figures were gathered on the ground by M. D. Edmonds, of the Fuel Administration staff.

This gain is due almost entirely to better attendance at work, for the tonnage per day per miner at work has not advanced much. In May it was 6.04 tons; in June, 6.10; in July, 6.20; and in August, 6.23. In other words, the gain is not due to the individual man exerting himself more; it is due to more individuals exerting themselves. The answer is seen in the company's output figures for May as compared with August. In May there were 905 miners employed and the output was 109,548 gross tons. In August the number of miners employed had sunk to 807, a loss of more than ten per cent, yet the output was 123,661 gross tons, a gain of more than twelve per cent.

At this point it might be well to introduce John Gulliver, coal miner and practical patriot. He is employed at the Pleasant Hill mine of the Clearfield Corporation and is within the age limit of the amended draft law. If he were to be taken in the army and were to fight like he works the Kaiser would certainly know it before long.

For John Gulliver has been turning out almost double the average daily tonnage per miner working. It is no flash in the pan, for he has been doing it right along for more than three months. The daily average per miner working is 6.23 tons, according to August figures, but in June Gulliver loaded 270 tons, or a daily average of 10.40 tons. In July he loaded 288 tons, an average of 11.70, while in August he sent out 297 tons, a daily average of 11. It is true he may have a better place than some other miners, and that a new place may cause his average to fall, but his case is interesting as showing the possibilities of greater production by the individual, just as the production committee idea has brought about greater output from mine organizations taken as a whole.

D. W. BRUNTON PLACED IN CHARGE OF BOARD'S WASHINGTON OFFICE

The Naval Consulting Board has opened a Washington office in Room 3547, new Navy Building, completely fitted out for handling all communications and inventions, all of which should be sent to this office. The office of the chairman and secretary will still be in New York, but the new working office here will be in charge of David W. Brunton, one of the present members of the board, and the force will consist of two of the present members and several well-known scientists.

Oil Consumption Increases

The moderate loss in the quantity of petroleum moved from wells and field storage tanks, charged in July to the Gulf Coast field, was more than offset by the gain credited in that month to the other fields listed, and the consequence was a net gain of 2.5 per cent compared with June, 1918, and of 2.4 per cent compared with July, 1917, according to J. D. Northrup, of the U. S. Geological Survey.

Additions in July to stocks of Central and North Texas, North Louisiana, and Rocky Mountain oils were decidedly insufficient to offset current drafts on the surface reserves of Eastern Oklahoma-Kansas, and Gulf Coast oils as a consequence of which there was a net depletion of stocks in excess of 3,000,000 barrels during the month. In the fields to which this summary relates the net depletion of stocks since July 31, 1917, has been about 21,000,000 barrels.

The quantity of oil apparently consumed in July was 10 per cent greater than in June, 1918, and 17 per cent greater than in July, 1917.

Conduct Probe in Coal Felds

Agents of the Bureau of Labor Statistics of the U. S. Department of Labor who have been examining into the wages prevailing in anthracite coal mines and in other industries in or near these coal fields have almost completed their work. Meanwhile data regarding the wages paid by the railroads, munition plants, and soft coal operators, and competitive industries, are being rapidly gathered and put into form for comparison. The results of these investigations are to be used in the adjustment of wages in the coal mining industry.

Labor-Saving Devices in Mines

A committee has been formed consisting of Grant Hamilton representing the Department of Labor; George J. Salmon, Bureau of Mines, and S. A. Taylor, representing the Fuel Administration, to investigate mechanical labor-saving devices relating to mining.

D. D. Hoag, of Joplin, Mo., is in Washington.

Movement May Spread Westward.

It has been frequently asked if the gasolineless Sunday request would be extended to include the territory west of the Mississippi River.

Mid-continent refiners are now canvassing the situation with a view of determining their ability to care for the Western territory and at the same time furnish the amount of gasoline they have agreed to deliver at Atlantic seaboard.

The solution will rest entirely upon their ability to provide for both demands. If this is found to be impossible, the country west of the Mississippi will be called upon to forego Sunday pleasure-driving temporarily, in order that the necessary stocks may be built up and maintained upon the Atlantic seaboard for shipment overseas.

Price Allowances on Deliveries.

Railroad companies delivering coal to consumers by order of the United States Fuel Administration for the purpose of relieving emergencies will be allowed to add to the cost of such coal an amount to cover extra switching, handling and accounting.

The order provides that the railroad may receive from the consumer or retail dealer to whom coal is so delivered the cost of the coal, including lawful transportation charges from point of origin to destination, and the additional sum of fifteen cents per net ton, or such greater additional sum as may be agreed upon by the railroad company and the consumer or dealer. In case of failure to agree on a settlement beyond the allowances specified, the Bureau of Prices of the United States Fuel Administration will determine and adjudicate such differences as may occur.

Making Study of Gasoline Costs and Prices

Concerning the report that the Fuel Administration is contemplating the fixing of the price of gasoline throughout the country, Mr. Garfield stated that a study is being made of costs and prices, and that on the basis of this investigation it is expected shortly to effect such a readjustment of prices as may be found to be reasonable and necessary.

In order to provide increased facilities for manufacturing the pneumatic rotary pump and other mining specialties, the Wood Equipment Company has recently purchased and equipped commodious shops at Grand Crossing, Chicago. The main offices will be located at that plant, and the company will continue to maintain a city office in the McCormick Building, Chicago, as well as branch offices in New York, Pittsburgh, Knoxville, and Denver.

CHAIRMAN BARUCH EXPLAINS WHY BUILDING HAS BEEN RESTRICTED

For the first time since its organization the operations of the War Industries Board have been called into question as to the source of authority under which they proceed.

Senator Calder of New York, offered a resolution adopted by the Senate on September 11, calling upon the Board to make this explanation, but confining the scope of his inquiry to "all orders relative to the construction and alteration of public or private buildings."

Bernard M. Baruch, chairman of the War Industries Board, made the reply which was presented in the Senate.

Senator Calder's resolution, his comments thereon, and Mr. Baruch's reply follows:

From Congressional Record of Sept. 12.

Mr. CALDER. I submit a resolution and ask unanimous consent for its present consideration.

The VICE-PRESIDENT. The resolution will be read.

The resolution (S. Res. 304) was read, as follows:

Resolved, That the War Industries Board be directed to transmit to the Senate all orders promulgated by that Board relative to the construction and alteration of public or private buildings, and to advise the Senate under what authority of law said orders were issued.

Mr. CALDER. I introduce this resolution because articles appearing in the newspapers within the last day or two indicate that the War Industries Board has promulgated orders which, in effect, will completely destroy the building industry of the country. The building material industry of the country has an investment of $4,000,000,000 in their business, and the new buildings constructed in the nation in the last pre-war year—1916—totaled $1,800,000,000. As I understand these orders, they prevent the construction of a barn, a silo, or even a private dwelling house or of any building of a private character without the permission of the Federal Government. If it be necessary in order to win the war to destroy this great wealth and tax-producing industry, of which it seems to me there can be few more essential, we ought to know it and the reasons for it, and the people must adjust themselves to it; but if this great business can be saved, at least in part, some way should be found to do so.

I ask unanimous consent that the resolution of inquiry be now considered.

The resolution was considered by unanimous consent and agreed to

Sept. [illegible], 1918

(Reply of the chairman of the War Industries Board).

To the Honorable the President
and Senate of the United States,
Washington, D. C.

Gentlemen:

On behalf of the War Industries Board, I beg to comply with Senate Resolution 304, passed September 13, 1918, and transmitted to me the same day.

1. The only order promulgated by the War Industries Board "relative to the construction and alteration of public or private buildings," is contained in Circular No. 21 issued September 3, 1918, and supplemented under date of September 10, 1918. Copies of the order and the supplement are attached hereto.

2. Said orders were issued under the authority conferred upon the War Industries Board and its Chairman, by the President of the United States, in a communication to the Chairman, dated March 4, 1918, and confirmed by Executive Order dated May 28, 1918, whereby the War Industries Board was created a separate administrative agency of the President, with powers, duties and functions set forth in the said communication from the President of March 4, 1918. Copies of said communication and of said Executive Order are attached hereto.

I beg to call particular attention to the following powers and duties thus specifically conferred by the President upon the Board and its Chairman:

a. "The studious conservation of resources and facilities by scientific, commercial and industrial economics."

b. "The determination, wherever necessary, of priorities of production and of delivery and of the proportions of any given article to be made immediately accessible to the several purchasing agencies when the supply of that article is insufficient, either temporarily or permanently."

c. The Chairman's duty to guide and assist "in obtaining access to materials in any way preempted," and "to anticipate the prospective needs of the several supply departments of the Government and their feasible adjustment to the industry of the country as far in advance as possible, in order that as definite an outlook and opportunity for planning as possible may be afforded the business men of the country."

I refer also to the Act of Congress of August 10, 1917, known as the Priority of Shipment Act.

3. In further response to Senate Resolution 304, permit me to add:

In carrying out the duties, with which we were thus charged by the President, the War Industries Board and its Chairman found the following situation to exist with respect to building and construction facilities and supplies:

a. Iron and steel are a necessary part of every completed building. They are necessary for plumbing, heating, ventilating, piping, hardware and mechanical equipment. The direct and indirect war needs of this country and of our Allies for the last six months of the current year already exceed 21,000,000 tons and the country's total output for the first six months was less than 17,000,000 tons. The unavoidable result is that iron and steel cannot be used for non-war or less-essential purposes.

b. The United States Fuel Administration, finding that the production of building materials consumed upwards of 30,000,000 tons of fuel per annum, and that there was a shortage in the fuel necessary for our war program, curtailed very materially the fuel allowed for building materials. The continued production of building materials for non-war and less-essential projects would now necessarily be at the expense of productions which our war program requires.

c. The Railroad Administration finds that 25 per cent of the total tonnage moved by the railroads is building material. It is absolutely essential that the portion of this tonnage which represents materials not needed for war or essential purposes should be displaced by tonnage which is.

d. The United States Employment Service finds that there is an acute shortage in the labor needed for the war program. It is absolutely essential that labor which may now be idle, or which may be engaged on non-war or less-essential work, should be employed upon work which will contribute towards winning the war.

It is, therefore, evident that the building and construction field furnishes an instance calling imperatively for the exercise by the War Industries Board of the duty, with which the President charged it, of conserving the resources and facilities of the country for war purposes, of determining necessary priorities in production and in delivery, of obtaining access to materials in any way preempted and of anticipating prospective war needs.

It is clear that there is not enough iron, steel, transportation facilities, fuel and labor to supply the direct and indirect war needs of the country and the non-war needs also, and that the resources and facilities used in non-war and less-essential building projects can only be applied thereto by taking them from the war needs.

The inevitable result of this would be failure to supply the war requirements of the country as they are needed. It would mean that non-war and less-essential needs would be produced at the sacrifice of war needs, with the consequent postponement of the day when the war will end and when American lives will be freed from the hazards of battle.

The attached orders were promulgated by the War Industries Board as a necessary means of avoiding this unhappy result.

These orders were only issued after the nearly six months' warning given by the resolution of March 21, 1918, which is quoted at length in Circular No. 21.

Attention is also called to the fact that before Circular No. 21 was issued numerous conferences were held between the Board and the manufacturers of the principal building materials. The latter appreciated fully the situation as briefly outlined above, and heartily agreed to cooperate with the Board in carrying into effect the spirit of the resolution of March 21, 1918, and, to that end, to enter into the pledge set forth in Circular No. 21.

The manufacturers, however, felt that, not having the country's war program before them, it was impossible for them to determine what building projects were essential and what were less essential. They felt that the War Industries Board should determine this question as definitely as possible, and should pass upon doubtful cases for them.

Accordingly, the Board did determine what were essential projects, defining them in paragraphs number (1) to (5), inclusive, of Circular No. 21, and projects of this character may proceed as therein explained. Other building projects are not prohibited, but may likewise proceed if the local Council of National Defense, which is primarily the body best fitted to judge, finds them in the public interest or essential, and if this finding is approved by the War Industries Board. Building projects which do not measure up to these standards must be deferred until the war program is fulfilled. If they are not, the due fulfillment of the war program will be impossible.

The orders referred to are very much in the interest of the public, because they will prevent the public, including the trade, from planning or undertaking building projects, and then, after plans or commitments have been made, finding that the war program makes it impossible to secure the materials necessary to complete them.

Moreover, the trade itself will find that because of the enormous housing and other construction work which the Government itself is undertaking, a large part of the trade's facilities will simply be transferred to new lines of building activity.

Finally the operation of the selective service acts will, much more than has already been the case, directly affect the amount of labor available for the building trade and for other industries. Even with increased efficiency and female labor, the natural outcome of this condition must be to curtail and reduce the volume of any given business not connected with the war program. As far as it is possible to do so, the less essential industries are being converted to more essential activities, but there will be a certain percentage of these industries which cannot be so converted. Therefore the volume of business in the less essentials will be reduced, and with this reduction there will come a corresponding reduction in taxability.

It is not only the policy, it is the clear and simple duty of the War Industries Board to see that the war program of the country is met, and this program must be met now, when its needs are upon us. This duty must be fulfilled, even if its fulfillment entails industrial loss in this country, as it does human loss abroad.

FUEL ADMINISTRATION REVISES ITS STORAGE REGULATIONS

The U. S. Fuel Administration announced September 14 a revision of the regulations governing the storage of coal by consumers listed on different preference schedules. This revision brings the practical distribution of coal into line with the statistics of production and consumption in different districts as developed during the past thirty days.

With the present very complete information coming to the Distribution Division of the Fuel Administration and showing exactly the production, consumption and stocks on hand in every district, it is possible not only to change where necessary certain movements of coal, but the accumulation of winter storage, which is at this time the most important element of distribution, can be made to play a very important part in getting maximum production and utilizing all available transportation most efficiently. Each week the Distribution Division has before it accurate figures showing the production of every mine during the week previous, also the consumption by all consumers and the accumulation of stocks on hand. If coal is taken into storage wherever possible in each district along the lines laid down by the regulations, it will militate to the advantage of both consumers and producers.

The amount of storage allotted to each district will be altered from time to time as may be necessary to carry out the plans of the Distribution Division for the coming winter.

This plan is designed to obtain the utmost from our transportation equipment with the least danger of any district being out of coal next winter on account of its distance from the mines.

Consumers on the preference classes recently defined by the War Industries Board are permitted to accumulate reserve stocks of bituminous coals as follows:

Maine, 135 days.

Massachusetts, Vermont, New Hampshire, Northern New York, 105 days.

Connecticut, Rhode Island, Southwestern New York, 90 days.

Southeastern New York and New Jersey, 60 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, Florida and Western Ohio, 45 days.

Western Pennsylvania, West Virginia, Eastern Kentucky, Eastern Ohio, 35 days.

Lower Michigan, 90 days.

CONSUMERS IN CLASS 2

Maine, 120 days.

Massachusetts, Vermont, New Hampshire, Northern New York, 90 days.

Connecticut, Rhode Island, Southwestern New York, 75 days.

Southeastern New York and New Jersey, 50 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, Florida, Western Ohio, 40 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 30 days.

Lower Michigan, 75 days.

CONSUMERS IN CLASS 3

Maine, 105 days.

Massachusetts, Vermont, New Hampshire, Northern New York, 75 days.

Connecticut, Rhode Island, Southwestern New York, 60 days.

Southeastern New York and New Jersey, 40 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, Florida, Western Ohio, 35 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 30 days.

Lower Michigan, 60 days.

CONSUMERS IN CLASS 4

Maine, 90 days.

Massachusetts, Vermont, New Hampshire, and Northern New York, 60 days.

Connecticut, Rhode Island, Southwestern New York, 45 days.

Southeastern New York and New Jersey, 30 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, Florida, Western Ohio, 30 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 20 days.

Lower Michigan, 45 days.

Consumers not on the preference list are limited to the following stocks:

Maine, 45 days.

Massachusetts, Vermont, New Hampshire, and Northern New York, 30 days.

Connecticut, Rhode Island, Southwestern New York, 20 days.

Southeastern New York and New Jersey, 20 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, Florida, Western Ohio, 15 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 15 days.

There is no restriction on the stocks of screenings which may be accumulated by either preference or non-preference consumers in Ohio or Lower Michigan, nor is there any restriction on the stocks of Indiana, Illinois or western coal, which consumers may obtain.

Supervision of the accumulation of stocks in accordance with these limits will be exercised by the several State Fuel Administrators, who are authorized to make exceptions where special conditions make it necessary.

A. Scott Thompson, chairman of The American Mining Congress committee on mine taxation, has returned to Washington after spending several days at Miami, Okla, and Joplin, Mo.

BUREAU OF MINES ACTIVE IN INVESTIGATION OF WAR MINERALS

The necessities of the war situation have stimulated in many ways to greater activity the functions of the Bureau of Mines, Department of the Interior, whose normal field covers the production of metals and minerals and joins that of the War Industries Board, which is concerned with manufactures and supplies and prices of raw materials for the same. Much of this increased activity has fallen to the war minerals investigation branch of the Bureau of Mines, provided for by special Congressional appropriation. Under this branch most of the special war activities have been grouped.

In the field of actual mining and milling numerous field engineers have been active, and the policy has been adopted of having these men afford immediate help in the way of advice as to correct mining and milling methods, where this advice is needed, and also regarding all other mining and marketing problems. A great volume of work has been done along these lines, which has made for greater efficiency in production, and which is not intended to form part of any special study or memoir.

In the various Bureau of Mines experiment stations special problems of ore treatment have been and are under investigation. Satisfactory experiments in the concentration of the western chrome ores have been made at Seattle, and experiments on the west Texas sulphur ores show their probable amenability to the flotation method. These are only examples of numerous investigations on milling methods, which cover manganese, graphite, and other war minerals.

Laboratory investigations, with the view of increasing the supply of electrodes, so as to make them available for western electric furnaces, are under way in Colorado.

The subject of the production of chromite has been thoroughly investigated by field parties in all parts of the country, and in addition the Bureau of Mines' engineers have investigated Newfoundland and Cuba, the latter in conjunction with the United States Geological Survey.

The war minerals investigation organization has provided for handling the questions of priorities, both of railroad transportation and of supplies and fuel, and a very large number of applications have been handled. The bureau has also had to act as adviser to the Railroad Administration as to the construction of short lines designed to tap mines, the problem being as to whether such construction was a war necessity or could be postponed.

Similarly, the Bureau of Mines has acted as adviser in mining matters to other government organizations. It has acted as the advising engineer of the Capital Issues Committee of the War Finance Corporation as to whether proposed issues of mining stock were essential to carrying on the war or could be postponed. It has also worked in cooperation with and acted as adviser to the War Industries Board, especially in certain matters such as pyrite, sulphur, and sulphuric acid, tungsten, etc., and in the decisions and measures taken by the board on these subjects, it has played an important part.

The bureau has in some cases undertaken the difficult problem of highway construction where this was necessary as the outlet for an important war mineral, and in the case of the important discoveries of chromite in Siskiyou county, California, the efforts of the bureau, working through the Forest Service, the Office of Public Roads, the local county government, and the operators themselves, succeeded in promptly starting the construction of the necessary highway.

The labor section of the war minerals investigation has proved a useful undertaking, and is cooperating with the Department of Labor, and in general handles the whole subject of mining labor in that connection. In many cases labor difficulties to which important war mines were submitted as a result of unfair labor competition, have been relieved, and in general the measures taken by the United States Employment Service to allocate unskilled labor have been directed as regards mining labor in such a way as to bring about the maximum efficiency. Cooperation with the War Department has also been undertaken, supplying classification of the mining men according to their work as a basis for deferred classification, and cooperating with the War Department and the Man Power Committee of the Department of Labor in seeing that the mining industry is included to maintain maximum production.

As a result of the investigations of the bureau as to the dangers which threaten production of war minerals, Secretary Lane has written to Chairman Kitchen, of the Ways and Means Committee, recommending that the excess profits tax be suspended in the case of those mines producing a war essential until special installations put in for that purpose should be amortized, and this recommendation has been universally approved of by those in possession of the facts.

The platinum situation has been closely studied by the bureau, and, in cooperation with the War Industries Board, plans and regulations have been drawn up which, it is believed, will enable a satisfactory handling of this commodity, and these regulations will be put into effect through the War Industries Board.

MANGANESE AND CHROME IN NEWFOUNDLAND AND NOVA SCOTIA

In the course of efforts to determine the possibilities of discovering and developing domestic or nearby deposits of chrome and of manganese, Frank H. Probert, mining engineer for the War Minerals Investigation Division of the Bureau of Mines, has just returned from an examination of the manganese and the chrome deposits in Newfoundland and in Nova Scotia.

Mr. Probert reports that as regards Newfoundland there are few harbors or deep waterways open the year round, the greater part of the coast being icebound three or four months of the year. There is only one railroad, which is of narrow-gauge type. The population is sparse and labor is scarce, with few skilled metal miners. The shortage of shipping caused by losses and governmental commandeering is another important factor.

Mr. Probert discusses four manganese deposits on Conception Bay, one on Trinity Bay, and one on Placentia Bay, all in the southeastern part of Newfoundland, but makes the general conclusion that, although large quantities of manganese are present, the thinness of the higher-grade beds, the amount of barren material to be moved per ton of ore obtained, together with the present labor and shipping conditions, militate against production even with the existing urgent need of manganese.

Of three districts having chrome deposits, only one is stated to be worthy of consideration—that at Bluff Head, which, if work is continued, will supply about 600 tons of desirable ore annually.

Nova Scotia is stated to have manganese deposits of exceptional purity in the New Ross district Lunenberg county. They cannot, however, be considered as a source of manganese ore for war industries. The deposits are small and costly to work, the district is in an isolated section, and the properties are all in bad condition and could not be quickly repaired. The district must be considered solely as a potential source of small quantities of high-grade "chemical" ore.

Examples of Coal Conservation

Large coal saving to supplement the war speeding up of production are reported by the Conservation Bureau of the United States Fuel Administration. The bureau's administrative engineer for Illinois, Joseph Harrington, reports that in Chicago the power and light committee has induced the Chicago Western and Indiana Railroad to close their pumping plant at Forty eighth Street and the railroad tracks, substituting electric power This change will reduce coal consumption at this plant 800 tons within the next two months.

The Sanitary District Power Company has been induced to enter into an agreement with the Commonwealth Edison Company by which, through the substitution of water power, an average of 150 tons of coal a day will be saved.

The city of Chicago will, by using the sanitary district water power at its largest pumping station, be able to save 18,000 tons of coal a year.

Thus in only three specific instances within the city of Chicago the new conservation methods so necessary at the present crisis account for a coal saving of 73,550 tons annually.

WAR INDUSTRIES BOARD ASSUMES CHLORINE CONTROL

Owing to the shortage of chlorine in the United States, the War Industries Board, with the approval of the President, has passed a resolution taking over control of its production. For the present, however, the Board is doing no more than allocate the product, and this is being done under the direction of H. G. Carrell, Chief of the Alkali and Chlorine Section of the War Industries Board.

Chlorine has a wide range of uses, the most important from the present Government point of view being in the manufacture of gas shells and in carbon tetrachloride, which is the basis of one of the most effective smoke screens and also of the best fire extinguishers.

One of the most important commercial uses of chlorine is in the bleaching of paper and various cloth fabrics.

FORMATION HARD TO DETERMINE IN KINGFISHER COUNTY

A geologist of the United States Geological Survey was sent into Kingfisher County, Okla., recently for the purpose of ascertaining whether the rock exposures were adequate as to number and character to enable geologists satisfactorily to determine the dips of the strata and to recognize and define any anticlines or domes that might be present.

The inspection was made to cover a zone across central Kingfisher County, embracing the county seat and a large part of the county, with reconnaissance observational circuits to the south, in the hope that the bedrock exposures would offer adequate criteria or even indications of structure in the region including Kingfisher, the plan being to examine and map in detail at the earliest practicable moment such favorable structures as might be indicated

The conclusions reached by the geologist were unfavorable as to the plan for further detailed structural studies in the vicinity. They were not unfavorable as to the possible presence of folds, including anticlines and domes, in the region, for such structure may, in fact, be present. The findings were unfavorable only as to the presence of geologic evidence exposed at the surface in sufficient amount and character to enable a geologist satisfactorily to discover and map any structures that might be present over any considerable area, in advance of wildcat boring and the study of the information contained in the well logs. In short, the conditions appear to be unfavorable to satisfactory examinations with a view to recognizing oil or gas structures which will not have been really tested by the drill.

In view of the negative results of the inspection, which concern merely the value of geologic investigations in advance of drilling rather than the question as to the actual presence in the region of structures favorable or unfavorable to the occurrence of oil and gas pools, it is not likely that a report will be prepared for publication.

CENSUS OF COAL TAR INDUSTRIES NOW COMPLETE

The United States Tariff Commission announces the completion of its census of coal-tar products for 1917. This group of products includes not only the coal-tar dyes and the crude and intermediate materials required for their manufacture, but also all the medicinal and photographic chemicals, explosives, synthetic resins, synthetic perfume materials, and flavors which are in any way derived from coal-tar products. There were produced in the United States (not inclusive of explosives and synthetic phenolic resins) 54,367,994 pounds of dyes and other finished products, which have a total value of $68,711,228. The production of the materials known as intermediates amounted to 322,650,531 pounds, with a value of $106,942,918.

The annual production was reported for the following groups of products made in whole or in part from materials derived from coal tar: 45,977,246 pounds of dyes, valued at $57,796,027; 5,092,558 pounds of color lakes, valued at $2,764,064; 2,236,161 pounds of medicinal chemicals, valued at $5,560,237; 779,416 pounds of flavors, valued at $1,862,456; 263,068 pounds of photographic chemicals, valued at $602,261, and 19,545 pounds of perfume materials, valued at $125 960.

There were 81 establishments engaged in the manufacture of coal-tar dyes in 1917, and their production during that year was practically identical with the amounts annually imported before the war. The imports for the fiscal year 1914 amounted to 45,840,866 pounds, and the production in the United States in 1917 was 45,977,246 pounds. However, an analysis of this total reveals that the domestic production, though equal in quantity to the preceding imports, differs in the relative amounts of the various classes of dyes. Only a small production was reported for indigo, and the alizarin and vat dyes derived from anthracene and carbazol—classes of dyes which include some of the best and fastest colors known to the textile trade. The United States produced only 2,166,887 pound of these dyes in 1917, and the elimination of 1,876,787 pounds of extract made from imported indigo reduces the output of these dyes to less than 3 per cent of the pre-war imports. Dyes of this class are dutiable at 30 per cent in the tariff act of 1916. The lack of development in the manufacture of these particular dyes promises to be remedied to a considerable extent in 1918 for a number of firms have begun their manufacture, and a large increase in production can clearly be foreseen.

In the classes of dyes which if imported would be dutiable at 30 per cent plus 5 cents a pound, the American manufacturers have shown remarkable progress, producing 43,810,359 pounds, at a total value of $57,639,990. That this represents something of an excess over the American needs is evidenced by the fact that during the fiscal year 1917 American-made dyes to the value of $11,709,287 were exported to other countries. Thus the exports exceeded the pre-war imports in total value, although not in tonnage nor in the variety of the dyes.

The development of the manufacture of intermedites is equally marked, for before the war almost all of these necessary materials were imported from Germany. The Tariff Commission finds that intermediates were manufactured by 117 firms in 1917, and that the production amounted to 322,650,531 pounds, valued at $106,942,918. These figures, however, are somewhat misleading, as there is inevitable duplication in the totals. It is well known that many of the intermediates are derived from other products of the same class. Thus, starting with benzol, the following succession of products is obtained: Nitrobenzol, anilin, acetanilid, nitroacetanilid, and nitranilin. Each of these products had to be reported by the manufacturer, and hence there has been some cumulative counting.

The totals for all of the coal-tar products will be published in the final report, which may well be expected to offer accurate evidence on the progress of the American dyestuff industry.

Connecticut Saving Fuel

The administrative engineer of the Bureau of Conservation, United States Fuel Administration in Connecticut, reports that those industrial plants which have furnished answers to the fuel saving questionnaire are, in a majority of cases, making the changes suggested in the power-plant recommendations. Eighty plants, consuming for the year ending May 1, 1918, practically 337,000 tons of coal, as a result of the conservation changes suggested, will save at least 15 per cent, or over 50,000 tons of coal annually.

INDUSTRIAL ACCIDENT BOARDS HOLD FIFTH ANNUAL MEETING

The Fifth Annual meeting of the International Association of Industrial Accident Boards and Commissions was held at Madison, Wisconsin, September 24 to 27, 1918, inclusive. This Association is a quasi-official organization made up of officials charged with the duty of administering workmen's compensation laws of the United States and Canada, who meet at least once a year to consider and, so far as possible, agree on (*a*) ways cutting down accidents; (*b*) medical, surgical, and hospital treatment for injured workers; (*c*) means for the reeducation of injured workmen and their restoration to industry; (*d*) methods of computing industrial accident and sickness insurance costs; (*e*) practices in administering compensation laws; (*f*) extensions and improvements in workmen's compensation legislation; and (*g*) reports and tabulations of industrial accidents and illnesses.

Among the subjects discussed at the conference were:

What is your commission doing to prevent accidents?

How should permanent partial disabilities be compensated?

The need for uniform reports of exposure to accident: Why tabulate non-compensated accidents. The use of standard accident and compensation tables;

Surgical treatment to prevent and minimize permanent disabilities;

How are medical questions handled in your jurisdiction? Compensation in cases of preexisting disease aggravated by accident.

Selection of the physician under compensation laws; Should medical service be limited? Need of medical statistics for compensation purposes.

Vocational rehabilitation for military cripples; How deal with crippled workers: Conservation and reclamation in the industrial army; Problem of the handicapped man in industry.

The morning of September 25 was devoted to a visit to the office of the Industrial Commission of Wisconsin and the afternoon of the same day, to visits to the Sisholt Plant and other industrial establishments.

Pooling to Be Extended

The Summers Commission, which is headed by L. L. Summers, a member of the War Industries Board, and its technical adviser, is at work in London, planning for the extension of pooling arrangements on other basic elements than tin. The purpose of these arrangements which the War Industries Board is seeking to make, extends to all materials in which there is a shortage, that all users of them may get a supply at a reasonable price.

PERSONALS

Mr. W. J. Armstrong, manager of the crushing and pulverizing sales department of the Jeffrey Manufacturing Company, Columbus, Ohio, has recently received an appointment as captain in the United States Army, and assigned to the Ordnance Department in Washington, D. C.

John C. Howard, of Salt Lake City, Utah, has returned to his home after spending several weeks in Washington and the East in interest of the oil producers of Utah.

J. F. Welborn, president of the Colorado Fuel and Iron Company, Denver, Colo., was in Washington during the month.

John T. Burns, western secretary of The American Mining Congress, has gone to Los Angeles and San Francisco to assist in the organization of a state chapter for California. Philip Wiseman, Capt. John Barneson, E. A. Montgomery, Fletcher Hamilton, L. C. Gordon, and Albert Burch are members of the organization committee. Mr. Burns will stop at Denver and Salt Lake en route, and will present things of importance to mining men now pending at Washington. He will be at the Washington headquarters again about November 1.

William H. Davis, who has been serving so efficiently in the Revenue Department, has returned to his home in Oklahoma.

B. Britton Gottsberger, manager of the Miami Copper Company, Miami, Ariz., is in the East.

J. F. Callbreath, secretary of The American Mining Congress, attended the Bankers' Convention at Chicago September 23-27.

Charles H. Taylor, of Oklahoma City, Okla., was in Washington during the month.

Col. Thomas A. Ewing, well known to the mining fraternity, died in San Francisco, Cal., on September 18, at the age of 83. Colonel Ewing was born at Lancaster, Ohio, in 1835, and spent the greater part of his life as a contractor, prospector, and miner in the far western states, first crossing the plains in 1859. In the very early days of The American Mining Congress he took an interest in its work and was at one time on its board of directors.

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AROUND A WIDENING CIRCLE

Prices of practically all commodities continue to advance. Each monthly cycle records an increase of one or more per cent in the diameter of the circle around which the business of the nation must revolve. Scarcity of production and of supplies in the market calls for an increase in price. This means an increase in the cost of living which calls for increased wages. The increase in wages, representing 75 per cent of the cost of practically all articles ot consumption, necessarily means another increase in the price of commodities. This increase in the price of commodities requires a still further increase in wages, and thus with regular occurrence we are revolving around a circle of continually increasing prices. It is easy to do business on a rising market and equally difficult to do business profitably on a falling market. Sometime and somewhere there must be a limit found at which point prices must begin to recede. Those who have taken a large profit on increasing prices may well afford to discount and accept a loss upon stocks in hand.

Those who have purchased their entire stocks at high prices must necessarily stand heavy losses. But what is to happen to the industries of the country when high cost production can find no market, and low cost production is impossible because of the high cost of labor and material? This is a burning problem, a problem which must be solved by intelligent foresight now, or be paid for later by business distress, unemployed labor, want and suffering.

MINING CONGRESS JOURNAL hopes to present in its December number a symposium discussion of this most important subject.

COOPERATION vs. COMPETITION IN THE COAL TRADE

The many advantages of that system of government which permitted success in proportion to the organizing ability of the individual has never before been so generally recognized as it is today. And yet, with all of the advantages which have accrued with this system, its success has been the subject of continual attack by those with the ability to criticize but not to construct; the ability to tear down but not to build. The first great national protest against the result of this system found national expression in the Sherman Anti-Trust Law. Its purpose was to make it possible for the man with small business ability and small capital, and perhaps no organization, to do business upon an equal basis with the man of commanding brain, large capital and complete organization.

It was not until the Supreme Court of the United States so construed the law as to make its terms reasonable that it became effective. The new construction of the law bids fair to make it a real, effective and beneficial force. The breaking out of the war brought about entirely new conditions, in which combinations were required by the Government, which in the pre-war period would have called for heavy fines and imprisonment.

In May, 1917, the coal operators of Indiana presented to the Federal Trade Commission and to the Department of Justice their plea for permission to so cooperate as to remove the disastrous competition which was then wrecking their business. The Federal Trade Commission expressed full sympathy and its desire to lend any possible assistance, but stated that under the law it had no authority to take any affirmative action in the premises.

The Department of Justice expressed its appreciation of the situation and its full sympathy, but, being the agency charged with the enforcement of the law, it could give no guiding advice.

At a later date the Illinois coal operators appealed to the Federal Trade Commission and the Department of Justice for approval of a modified form of cooperation, and received such encouragement that the Franklin County Association was organized and for some months operated a plan by which a central secretary reported to the members, at stipulated periods, the total sales in the district, the high and low prices 'received, and the average selling price. This had a stabilizing effect, in that coal operators were not stampeded to sell at less than cost by the purchaser's story that he could obtain coal very much cheaper elsewhere. Unfortunately for this plan, it came into operation just at the outbreak of the war, when the demand for coal largely exceeded the supply and, in accordance with the law of supply and demand, prices rapidly advanced. Not long after under governmental pressure it was found expedient to disband the Franklin County Association and to discontinue its operation. This was shortly after followed by the creation of a national Fuel Administration and the practical control of the coal business by the Federal Government.

Then came enforced cooperation which in ordinary times would have been punished by imprisonment for terms extending to the third generation. Thus far the coal producing units have been so operated as to permit the unscrambling of this situation without detriment to the individual operations. There is much indication of a general desire that the coal industry shall continue in centralized operation. The Black Diamond expresses the belief that the purpose of the different bills introduced in the United States Senate providing for commissions to study the after-war problems and make investigations, is "as far as coal is concerned to arrange for the perpetuation of the Fuel Administration." THE MINING CONGRESS JOURNAL does not detect in these bills other than a desire that after-war problems shall be studied in advance, and that proper preparation shall be made to meet the inevitable changes which are necessary to return to former vocations the 10,000,000 men now engaged in war service.

One of the new and distinctly unique problems will be the discovery of the happy mean between enforced ruinous competition and the enforced cooperation which permits of no competition. MINING CONGRESS JOURNAL expresses the belief that the principles which it advocated before the creation of the Federal Trade Commision will eventually be recognized as the best possible solution of this situation. This general plan preserved the integrity of the Sherman Law as construed by the Supreme Court, and provided for government supervision of all combinations, whether of labor or capital, the power being given to some governmental agency to approve such combinations as will operate with benefit to the community and to withdraw such approval, leaving subject to prosecution, under the Sherman Law, all combinations whose operations are inimical to the public interest.

This question will again become important shortly after the close of the war. The largely increased productive capacity of the coal mines required to meet war needs will all be available after the war demand has ceased.

Normal coal consumption will not be sufficient to use the full output of the mines. Surplus production capacity will inevitably lead to cut-throat competition as in the pre-war period, unless some remedy is devised to prevent. It is time now to begin the careful consideration of this question.

GOLD WILL COME BACK

Just so long as the present high price level is maintained, so long will the production of gold from the great low grade mines be impossible without some special stimulation. Practically every other article of production goes into a market in which the law of supply and demand controls the price. The concentrated business judgment of the world has for ages agreed that gold is the most satisfactory medium of exchange, the most satisfactory basis of credit, and the most satisfactory measure of values. Through the ages, and through all the varied conditions of industry and finance, through periods of high prices when gold production was greatly hampered, and through periods of low prices, when the purchasing value of gold was greatly enhanced, gold has remained the basis of financial transactions. Periods of high prices have shut off gold production, produced gold hoarding, and culminated in periods of great depression, a shrinkage of all values and the creation of conditions under which gold production was again profitable.

In recent years there has been a continual trend toward high prices. Price is made up of two elements: the cost of raw material and the cost of labor which fashions it for use. During recent years the increase in wages, the shortening of hours, the lessening of efficiency, have more than offset the increased capacity of labor made possible by mechanical invention.

No combination to control the cost of either natural resources or labor can permanently alter the value of gold. To the extent that organized labor has been responsible for an increase in wages, it has performed a valuable service. To the extent that it interferes with the efficiency of labor, it is adding greatly to its own burdens as well as the burdens of the world. Increased pay and increased efficiency must go hand in hand else the advantage of invention will not inure to the benefit of the public. Increased wages and decreased efficiency, so long as all labor is employed, add continuously to the burden of high prices. High prices restrict consumption, *i. e.*, take from the masses the luxuries to which they have been accustomed.

This leads to a falling off in the demand for the production of semi-luxuries and the employment of this released labor in the production of necessities. An over-supply of necessities and a decreased market demand for luxuries soon create a glutted market with its attendant falling prices.

When that time comes, the gold producer will again be in his glory, gold mining will again be profitable and the increase of gold somewhere near the ratio of the increase of other wealth will again obtain.

The owner of a gold mine need have no fear of the future. His product will find a profitable market either through intelligent foresight and statesmanship or through the crushing logic of an industrial panic. No combination has power to permanently destroy the standard of values.

WAR REVENUE LEGISLATION

The Senate Finance Committee has made no formal report of the Revenue Bill at the date of this writing. It will likely be reported when Congress reconvenes November 12.

The committee has worked earnestly with the view of making an earlier report, but important changes in the House Bill have been made requiring more time in its preparation.

We understand the following changes in the House Bill have been tentatively agreed to by the committee:

1. Lowering of the surtaxes on incomes below $100,000 and raising them on incomes above such an amount. This it is reported, means a very small loss in revenue to the Government.

2. The definition of *Invested Capital* has been greatly improved. The bill will permit full valuation of tangible property exchanged for stock. The Senate

Committee is to be commended in making this change which is nothing more than justice. It removes the wrong done the conservative, honest business man and the premium placed on watered stock. In passing we may observe that this is one of the modifications asked by the American Mining Congress.

3. The committee has removed the penalty of 6 per cent on corporate undistributed earnings. The House Bill penalized every corporation 6 per cent on the amount retained in business. This is important to all corporate business but especially in the mining business, where earnings are continually going back into the business as of necessity. The American Mining Congress emphasized the necessity of removing this penalty.

4. The House Bill prohibited the filing of consolidated tax returns by corporations closely affiliated. The Senate Committee, recognizing the injustice of this provision has not only stricken out the House provision but has provided that such returns for both income and profit taxes shall be consolidated. Many mining corporations are closely affiliated with subsidiary operating companies, with identical ownership and inter-transactions making it as one business. The American Mining Congress is pleased to see this modification of the House Bill made as it is one of the important ones suggested by us.

5. The committee has recognized the need for special treatment of sales of mining, oil and gas properties, by fixing a maximum surtax on the income derived from the sale of such property by the discoverer at 20 per cent of selling price. This is an important step. The difference in the cost and selling price in the case of discovery is usually so great, and being realized in one year, that sales of such property have almost stopped. This feature has been suggested to both committees by The American Mining Congress with the hope of relieving the condition and as a fair recognition of the peculiar problems in mining.

6. One of the very important changes made by the committee is the allowance for depletion and depreciation. We understand the committee has adopted a provision allowing to mines, oil and gas wells, other natural deposits and timber, an allowance for depletion, and depreciation of improvements. This allowance is to be given according to the peculiar conditions in each case, based on cost plus cost of improvement or value of property of March 1, 1912, if owned at that date. These privileges are made available to lessees as well as fee owners. An important additional provision is made *allowing the discoverer, regardless of cost, to have the market value of his property after discovery or within twelve months thereafter returned through depletion credits.* This is a step in the right direction, recognizing the distinguishing characteristics of mining. We have urged the adoption of an amendment permitting mines to have a reserve for replacement of ore or oil reserves. This principle is sound, just and right. Every pound of ore or barrel of oil removed and marketed is a partial liquidation of capital and that portion representing capital should not be taxed but should be utilized for replacement of reserve. The legislative and administrative departments have been inclined to treat mining companies, for taxation purposes, as a business in the hands of a receiver and in the course of winding up its affairs and going out of business. They lose sight of the fact that a "going mining business" must, if it continue in business, replace its deposits and that the sale of ore or oil is the diminishing or extinguishing of its chief capital asset. Sooner or later, Congress will recognize *replacement* in case of mines as being sound, equitable and just. We want to urge upon our readers, however, that the depletion allowance is an improvement over the old law and in many cases very substantial relief will be obtained thereby.

The House Bill provided for a war profits tax allowing pre-war earnings as a deduction. New corporations with pre war earnings were to be allowed but 10 per cent of invested capital—a most manifestly unfair and unbusinesslike provisions. The House, by such tax, in effect penalized all new corporations the basic of such reasoning being impossible to understand.

The American Mining Congress opposed the imposition of such penalty as against the announced policy of federal encouragement and contrary to good business practice. In its argument, showing the injustice proposed, The American Mining Congress Committee on Taxation presented the following illustration which made clear what would have happened:

Two corporations, each with $10,000,000 capital, earnings 15 per cent on invested capital, the old company having a pre-war earning of 15 per cent, the tax computed under the House Bill as follows (eliminating the $3,000 exemption for simplicity):

1. Old company:		
Capital..	$10,000,000.00	
Deduction.	.08%	
	$800,000.00	
Earnings	$1.500 000 00	
Deduction	800,000.00	
Taxable income at	$700,000.00	
30% first bracket	.30	
Tax	$210,000.00	
2. New company:		
Capital..	$10.000,000.00	
Tax under first bracket		$210,000.00
Earnings	$1 500 000 00	
War profits credit	1,000,000.00	
	$500,000.00	
	.80	
80% of $500 000	$400 000.00	
Less tax under first bracket	210,000.00	
Tax under third bracket	$190,000.00	190,000 00
Total tax		$400,000.00

This would have compelled the new competing corporation to pay 90 per cent more tax than its older rival of similar earnings and capital.

Discrimination such as this would have destroyed competition where conditions existed as illustrated. This would have been particularly true in the mining and oil business where nominal earning must be more than 10 per cent upon capital.

The following provision has been added by the Senate Finance Committee which, we believe, fully covers the situation:

> Sec. 312.
>
> (c) If the corporation was not in existence during the whole of any one calendar year during the pre-war period, then the war-profits credit shall be the sum of:
>
> (1) A specific exemption of $3,000; and
>
> (2) An amount which bears the same ratio to the net income of the corporation for the taxable year as the average war-profits credit (computed without the benefit of the specific exemption of $3,000) of representative corporations engaged in a like or similar trade or business, bears to the average net income of such representative corporations for the taxable year; but such amount shall in no case be less than 10 per centum of the invested capital of the corporation for the taxable year.

This leaves but two of the eight special requests of our committee yet to be cared for:

First, a provision for companies having a pre-war record but which have so largely added to their capital investment since the war as to be practically on the same basis as new corporations.

The bill, as we understand it will be reported by the committee, leaves this new capital with a deduction of but 10 per cent, an entirely inadequate deduction in short-lived, hazardous and wasting industries. There would seem to be no reason why additional capital invested in a pre-war enterprise where the 80 per cent tax is to be applied, should not have the same deduction as the original capital and the same as if it had been invested in a new enterprise. We still hope that this inequity will be remedied.

Second, the request of our committee has not been approved that settlements made with the Treasury Department after a finding by its Advisory Board and approved by the Commission of Internal Revenue shall "be final unless set aside by a court of competent jurisdiction."

It may be that such settlements will be construed as final and yet there would be no legal defense against an action by some succeeding internal revenue commissioner to recover a greater tax. It would seem but just that a settlement made after full disclosure of all the facts involved should be final.

GOLD PRODUCTION NATIONAL QUESTION

It is very unfortunate that the first impression gained by the public of the discussion concerning gold production is that this is primarily intended for the benefit of the gold producers. As a matter of fact, its paramount interest lies in the question of the maintenance of the national credit.

At the beginning of the war, the gold reserves of the United States amounted to approximately one and three-quarter billions of dollars. At the present time, these reserves have increased to slightly over three billions of dollars. In the year 1913 the Internal Revenue taxes of the United States produced $344,000,000. In 1917 the Internal Revenue taxes amounted to $809,000,000. In 1913 the bank clearings of the United States amounted to $173,000,000,000. In 1917 the bank clearings were $303,000,000,000. These figures show that the ratio of burden upon the gold stock of the country was the same, proportionately, in 1917 as in 1913. Is is probably true that by the time the war expense has been cared for, we shall have issued not less than $25,000,000,000 ot bonds, the principal and interest of which are payable in gold. This will call for the payment of approximately $1,000,000,000 annually in interest, to say nothing of a proper sinking fund for the final redemption of these bonds at maturity.

There is no question of the financial ability of the United States to meet these obligations in goods and things money will buy, but we may well consider whether there will be sufficient gold and this question will be particularly apparent when gold is again permitted to resume its proper function in the finances of the world and made available not only to settle foreign balances, but to respond to the premiums which foreign countries must necessarily give in order to replenish their gold reserves. True, the Federal Reserve banking system is splendidly adapted to care for such an emergency, but it is also true that just to the extent by which the United States possesses more than its usual share of the world's gold reserve, just to that extent will foreign nations be forced to bid such price for gold as will add to their gold reserves and sustain their national credit.

The price which will be required to take this gold from us will be more than its coinage value; which means that gold, all of the world's gold, will be at a premium. When that time comes gold mining will again be profitable and the great consternation will be with those whose lack of foresight has permitted the gold mining industry to be crushed.

THE WAR MINERALS ACT

It is not often that the editor of the Mining & Scientific Press loses his equilibrium in the discussion of an important public question and this is particularly true as related to subjects strictly within the domain of mining science. Its discussion of the War Minerals Bill, under date of October 19, under the heading "The Government's Duty to the Miner," justifies the suspicion that the editorial was hastily written.

In connection with the chromite situation, so great an over-production has been created in a field of previous great scarcity that many of the chromite producers of the northwest are on the verge of bankruptcy because of the expenditure of great sums of money in the production of chromite for which there is no adequate market. It is true that there was an urgent appeal sent out from Washington to the effect that there was a great shortage of chrome ore and that in response to this appeal, development and production have far exceeded the present demand.

"What would you call those pleading letters and telegrams from the War Industries Board and the Bureau of Mines," asks the Mining & Scientific Press, "if they were not in the nature of contracts?"

As constituted officials of our Government, they spoke for that Government, and they told the miners in plain English "to make haste and produce."

In business, that would be esteemed a "firm order" if it came from a reputable house. . . . The people of the United States are just; they believe in the sanctity of contract, and they do not hold it clever in their representatives to pretend to save a dollar for the Treasury by making the Government play false to its engagements.

We are having a startling illustration of the serpentine beauties of bureaucracy! The method of building an organization for war supplies and from an unpaid personnel of men who represent primarily the interested industries, is wrong in principle. It has provided a camouflage of patriotism for the profiteers. "A man should be paid for the service he renders, and be held accountable to the people for rendering it. Our view of the case is sustained by men of all shades of political faith."

This is how it appears to one prominent committee-man in Washington.

> First as to the War Minerals Bill, I agree with you that it has been emasculated until it is of small value. The truth is that it has been killed by the bigger corporations of the country or by men the men who run them. The way this bill has been antagonized by men whom we respect for what they have done in other things, who yet seem to be incapable of divesting themselves of their previous selfish competitive instincts, is grievously disappointing. You know these men as well as I. . . . It is lamentable how the selfish obstruction, first raised at a meeting of a division of The American Mining Congress, subsequently kept alive by one of their men who camped in Washington and attended practically every hearing of the committees on the subject, acting as lobbyist, and cross-examining witnesses followed by the attacks of the now president of the Anaconda Company . . . have caused delay and amendments.

We leave it to others to fight the battles of the wronged food producers; they have their organs, and their difficulties meet with our sympathy because they resemble those of the metal miners whose rights it is our special province to defend, especially prospectors. These build the foundations of the mineral industry, because their work constitutes its beginnings. This time it is the small miner who has been unjustly treated. Unscrupulous men have abused the authority given them, and the result is that financial ruin threatens an army of hard-working prospectors and miners. This must not be. The Administration is eager to keep its record clean as the champion of democracy, and it dare not allow such injustice, undertaken for the gratification of corporate greed, to stand unrighted.

THE ATTITUDE OF THE AMERICAN MINING CONGRESS

First replying to the criticism of the position of the American Mining Congress in relation to the War Minerals Bill:

The gentleman who is referred to as "camping in Washington" did not speak for, nor pretend to speak for, the American Mining Congress. While it is true that the meeting of western mining men held under the auspices of the Colorado Chapter of the American Mining Congress at Denver, in January, 1918, did not approve the form of the original War Minerals Bill, which provided for the taking over of all mining, smelting and reduction properties and the power to fix prices, yet it can hardly be said that the action justified the statement that "It is lamentable how the selfish obstruction first raised at a meeting of a division of the Americain Mining Congress . . . caused delay and amendments."

The resolutions adopted after referring to the rare metals and in face of what seemed to be an imperative war need were as follows:

"1. That we favor the encouragement by subsidy, direct and indirect, and in every other way, of the production of such rare metals.

"2. That we favor the stimulation by every possible means of the production of gold and silver.

"3. That we do not favor government control or operation of mines producing gold, silver, copper, lead, zinc, or other metal or mineral unless a shortage should develop therein."

At a later meeting of the Colorado Chapter of the American Mining Congress, held April 2, attended by a large percentage of the rare metal producing interests of that State, it was resolved,

"That the Colorado Chapter of the American Mining Congress and the Colorado Metal Mining Association are in full accord with the purposes of the Ad ministration as outlined in the provisions of the bill proposed by the War Minerals Committee to create an administration for the mineral industry, and believes that important and much-desired results may be accomplished thereunder; but they trust that the powers conferred by Section 12 will be so employed as will least disturb established enterprises and existing conditions, particularly those affecting labor."

The Washington office of The American Mining Congress urged the importance of a bill for the stimulation of the production of all of those minerals needed for war purposes, the supply of which had been cut off by taking the ships engaged in importations for foreign service. It urged before the House Committee that this work should be placed under the direction of the Interior Department already equipped, through the Geological Survey and the Bureau of Mines to handle these problems, particularly because these agencies would be looking after the welfare of the mining industry after the war is over and, therefore, that a permanent advantage to the country would come through the handling of these problems through agencies already so engaged.

Before the Senate Committee this office urged the adoption of the bill, first, to supply the present requirements and, second, that in the present high-priced period the development of the nation's rare metal resources should be made in such a way as to create permanent industries. This record does not, in our belief, justify the charge of selfish obstruction.

CHARGE OF ABUSE OF AUTHORITY BY UNSCRUPULOUS MEN, UNFOUNDED

THE MINING CONGRESS JOURNAL is in fairly close touch with the situation in Washington. It does not believe that the wholesale criticism implied in this editorial is either just or fair to those men who are serving the Government without pay and who bring to their work the benefit of long training, successful businesss experience, and accurate judgment, developed through many years of successful application to the particular line of work which the Government requires. The fact is, that the Administration of our national affairs staggered and went blind until these men, giving up their personal affairs, came to Washington and devoted more hours daily to their work than had previously been their custom to devote for a week or a month.

The writer has seen much of the work these men are doing; has frequently interviewed them while eating a hasty lunch brought to their desk because of lack of time to leave their work, or perhaps late in the evening after being confined to their desks for twelve or fifteen hours of almost continuous effort. There may be cases where men are engaged in the government service without pay, who "represent primarily the interested industries." There may be cases where "it has provided a camouflage of patriotism for the profiteers."

But if there are such, the MINING CONGRESS JOURNAL does not know of them. It does know that when the Administration undertook to do business through men who did not understand the principles involved, no progress was made. It believes that when appointments to this class of service were made with the apparent intent to shun those who had managed large business enterprises but little was accomplished. With the exception of the Food Administration, no progress was made at all commensurate with the great need of the nation to measure up in proportion to its great wealth and responsibility. It does know that from the moment the responsibility was placed with D. C. Jackling, John D. Ryan, Charles M. Schwab, B. M. Baruch, Pope Yeatman, Seeley W. Mudd, Samuel A. Taylor, David W. Brunton, James B. Neale, Robert Van Arsdale Norris, J. E. Spurr, Hennen Jennings, Albert Burch, C. K. Leith, Francis S. Peabody, Mark L. Requa, and men of that character, from that moment the accomplishment of the Government has brought astonishment to those who, because of the previous experience, were half convinced that democracy was failing under the supreme test. It is unfortunate that the War Minerals Bill could not have been put into operation at an earlier day in order that direct contracts might have been made for the production of such chromite as the Government needed, rather than an over-production should have resulted, from the belief that an ample market at a higher price would be available to all producers.

HONEST OPPOSITION

"The attack of the new president of the Anaconda Company," seems to be better justified than the writer then believed. Mr. Kelley came before the committee at the request of its chairman, and not voluntarily. He opposed the bill because he believed the principles upon which it rested to be unsound, and expressed his "grave concern to be obliged to take a position that is diametrically opposed" to the proponents of the bill. He asked to be "accorded the same degree of credit for honesty of purpose" as he frankly gave the supporters of the bill. Mr. Kelley's opposition was based upon his belief that the law of supply and demand could be trusted to develop the minerals of the country as rapidly as conditions warrant.

Whatever the merits of the controversy concerning the War Minerals Bill, THE MINING CONGRESS JOURNAL desires to register its emphatic disapproval of the wholesale criticism of the men whom money could not hire, but who are patriotic enough to give to the Government the benefit of their life training through days and nights of tedious, painstaking and for them unusual service.

COAL'S ISOLATION

About forty representatives of the coal industry—being the directors of the National Coal Association—met in Washington the third week in October. Principally they discussed the approach of the end of the war; what to do to protect themselves from the impending smash; and the probable future.

It is understood that the crux of their deliberations was that it is unfair to the trade to keep an iron hand on its head during the war and then put no hand under its feet when the war and the demand for coal collapse together.

As to whether to invite the Fuel Administration to remain a force—for a short time only—they were at first undecided, but finally agreed that it would be of no avail unless a minimum price on coal were a condition precedent to the continuance of the Fuel Administration.

As a safety valve for the coal trade, it was proposed that an export pool be organized to conduct foreign trade, its powers being outlined by the Webb-Pomerene bill.

The fact of this decision is not important. The subject matter is not under debate. The one thing which strikes one as a little off key is the aloofness and isolation of the coal industry. It is trying to solve the problem working alone and without consulting with other industries. It has kept aloof even from men in the same line, in recent years especially.

By way of contrast, something like 500 industries—or their branches—are affiliated with the Chamber of Commerce of the United States. Their representatives will be at the meeting of the reconstruction conference in Atlantic City on December 4, 5 and 6. They are going to assail the whole question of reconstruction as business in the mass. These industries believe that only in such union is there safety.

The coal industry proposes to go it alone. It has started to go it alone.

Coal men have always been timid. In industry, they have—maybe a contributing cause is that they lack leaders—never commanded respect for the character of their decisions. Their profits do not show that they have proved themselves super business men. Yet, facing the tremendous questions which are involved in reconstruction and facing the realization that their product is the foundation for all other industry, they persist in attacking this great question alone.

One may admire their courage. When commenting on their wisdom, he may be forced into a discreet silence.

One thing is obvious. If, taking this isolated position, coal men are bested by the politicians and deserted by the other business men whom they now ignore, they will have no one to blame for their plight but themselves.

THE CHROMITE SITUATION

In the early part of 1918 the shortage of ship bottoms for carrying on our suddenly expanded military program became acute, and as an emergency measure the President issued a proclamation which had as its ultimate object the restriction of imports to the barely necessary amounts and diverting the shipping thus saved to urgent war purposes. The task of outlining programs for restriction of imports was delegated to the Shipping Board and Mr. Hurley, who appointed Dr. E. F. Gay to formulate these programs, and Dr. Gay was made a member of the War Trade Board, so that the programs would be carried out under the combined authority of both boards. For the programs of restricted mineral imports Dr. Gay appointed C. K. Leith and J. E. Spurr to form the Committee on Mineral Imports. To this committee Pope Yeatman was added, representing the War Industries Board. One of the problems taken up was that of restricting the importation of chromite from far distant points, such as New Caledonia. A study of the situation was made which involved full conferences with the chromite consumers and the chromite producers, including those of California and Oregon. In 1917 the consumption of chromite in the United States was 127,000 tons of the equivalent of 50 per cent ore, and the consumers advised that the 1918 consumption would be greater. The domestic production in 1917 was 36,552 tons, with 11,407 tons imported from Canada, and no production from Cuba or Brazil.

Investigations of waste of chromite were made by the Committee on Mineral Imports, with the cooperation of the Interior Department, and the conclusion was reached that if proper conservation measures were taken the consumption for 1918 might be reduced to 130,000 tons. It was the consensus of opinion among the producers that with the proper stimulation the domestic supply for 1918 might be raised to 50,000 tons (on the 50 per cent Cr_2O_3 basis) and the Canadian supply to 15,000 tons, while investigation of the possibilities of Cuba and Brazil led to the belief that from these countries might be obtained approximately 4,000 tons and 22,500 tons respecticely (on 50 per cent Cr_2O_3 basis). The consumers finally agreed to this program tentatively and the steel-makers agreed to put into operation the experiment of conservation. The principal consumers advised that they would take all the domestic chromite which could be produced, at a good figure, and so advertised publicly, and the government organizations in Washington urged an increase of chromite production in the United States, the universal agreement being that the maximum supply could not exceed the demand. Within a short time, under the stimulus and encouragement of high prices, the production of chromite in California and Oregon assumed absolutely unexpected proportions, new deposits being discovered, especially in Siskiyou County, California. The conservation programs also resulted in enormous savings, the use of chromite as a refractory in steel-making being practically eliminated, with a result that the estimated total consumption for 1918 is about 95,000 tons of 50 per cent chromite, as compared with 127,000 tons in 1917. This unexpected great increase of supply and shrinkage of consumption brought about a condition of oversupply. Somewhat contributing to this was a technical loop-hole in the restriction program. As originally recommended by the Committee on Mineral Imports no exception was to be made to the program on the basis of ballast, or back-haul, but the War Trade Board ruled that these exceptions might be admitted at the discretion of the Ship Control Committee in New York, without referring specific cases back to the War Boards. That is, where a ship coming from New Caledonia needed ballast on account of having a very light main cargo, it might use chromite as ballast instead of taking on rock ballast. Through this loop-hole more chromite was brought in from New Caledonia than was expected.

It results that the present situation is that we have no further shortage of chromite to anticipate if things are handled with reasonable judgment. Chromite producers were notified some time ago by the Government that it was not encouraging further development, which is indeed the case with manganese and pyrite, for example. Nevertheless certain producers had gone to heavy expense in the way of equipment and installation and were dismayed at the prospect of not being able to get back their investment. The Geological Survey and the Bureau of Mines have strongly represented to the War Industries Board that the Government should protect the investment of these people, so that they should get their money back, and so bring about the transition from a condition of scarcity to a condition of abundance, and from a period of high prices to a period of lower prices, without serious financial disaster to those who embarked on large enterprises upon government representations. The chairman of the War Industries Board has expressed himself emphatically as strongly in favor of this program, and the question is only as to how to put it into effect. It was believed that this could be done through the Mineral Act, but the legal counsel of the War Industries Board was of the opinion that it could not be taken up under this act, on the ground that there exists at present no shortage in chromite. However, the Bureau of Mines has requested the opinion in this matter of Judge Curtis H. Lindley, of San Francisco, and he is of the opinion that it is entirely within the power of the President to take up the chromite question under this Mineral Act if he so decides.

CUSHING COMMENTS ON COAL AND FUEL ADMINISTERING

By Geo. H. Cushing

With the war ending because nobody in Europe wants to take on a new fight with a fresh country like the United States, it is a little late to talk about what has been done in coal by adopting the right methods. For the influence it may have on the future, it might be well to record one fact.

When the coal shortage came—long after America was morally at war with Germany but long before we admitted it—the coal men hit the nail on the head when they said:

"The only known cure for a coal shortage is more coal. With prices up because of a coal shortage, the way to bring them down is to end the coal shortage by producing more coal."

It wasn't good business for the coal men to give this candid advice to the nation. If, at heart, they were profiteers they might have kept their mouths shut; allowed the coal shortage to remain, and reaped the golden harvest to the end.

If Mr. Peabody had been the thoroughly bad citizen that the politicians painted him as being, he would never have organized a committee to expedite production and thus end his chances for making a million a year and board.

The fact is that the coal men advised a studied effort to produce more coal, and Mr. Peabody organized a committee which did it. So you can draw your own conclusions as to what sort of fellows they are. The record says they were good citizens but bad business men. In that, at least, they were consistent as a record of the coal industry for 100 years will prove. They made this country rich on cheap power made from cheap coal. Yet, the rich country is the only monument they have ever been able to leave. Most of them were buried without headstones because the granite man insisted upon cash and would not take a coal mine as security for the slab.

But that is wandering. The cure for a coal shortage was more coal. It took the Fuel Administration nine months to learn what even a dull boy in school will get before the morning recess. Then the whole thing dawned upon Washington like an inspiration. It appointed a committee.

Meanwhile the country suffered the tortures of those who pass into purgatory with no one left behind to speak an influential word to the priest.

Now the record stands thus: From January 1, 1918, to November 1, 1918, the increase in coal production has been 34,000,000 tons over the record of 1917.

But, from July 1, 1918, to November 1, 1918, the production increased 24,000,000 tons.

That is, in six months without a production committee, the output increased 10,000,000 tons. In four months following, with a production committee output increased 24,000,000 tons.

Mr. James B. Neale, the head of the production committee, did in four months what the whole Fuel Administration—including Mr. Noyes with his saving a "million tons a minute" by new schemes

—had been unable to do in ten; he ended the coal shortage in America, war or no war. The reason for this statement at this time is apparent. The coal market is soft. If peace comes it will be mushy. Those who speak without figures will say that the war ended the coal shortage. The figures prove that Mr. Neale did it.

Incidentally, the people helped some. They took in coal in summer, which they had never done. The fact is that some cities—Philadelphia is an example—did 65 per cent of their retail coal business in the summer months. The retail business for this year has been done. This is going to teach the coal men something—principally that the time to sell watermelons is in summer and the time to sell domestic coal is in the winter. Some coal men have been pleading for years for an equal monthly production of coal. They, somehow, imagined that this would steady the market and increase the consumption. The fact which is now brought out is that all it will do will be to make the coal business as unprofitable twelve months in the year as in normal times it is in the off season. As a practical matter of fact, the retailers are now out of business until this time next fall. They will have a year to reflect on equal monthly installments in the coal business—and to eat up the fat they have accumulated since 1916.

Speaking of the Fuel Administration, one always thinks of the fertile Mr. Noyes (P. B. Noyes, sometimes called "Pretty Big" Noyes). In the same week that the President read the Republican congressmen out of the Society of the Patriotic Sons of America, Mr. Noyes quit Mr. Garfield's right hand to go on a stumping tour of New York State in the interest of the Democratic Party.

Practical professional politics got pretty close to the coal trade in those two events. Especially is this true when there is added the fact that the Subcommittee on Manufactures of the United States Senate decided to reopen its inquiry into the coal case. The avowed purpose of the latter movement sounds just a little strange at a distance of a thousand miles from Washington. The open accusation is that the Fuel Administration is being run by the coal men. At the same time, it is admitted that those coal men got out the coal which ended the shortage and started coal prices tumbling, all over the nation.

One wonders whether the Senate Committee has became so accustomed to the coal shortage it will feel lonesome without it, and wants to put the old gang back in power, over behind the New Interior Building, so that we may again feel comfortable with a coal shortage in our midst.

Or, is the Senate Committee merely working for the circulation department of the New York World by allowing that sprightly organ to say that it has enough power in the Senate to start an investigation of coal.

Changing the subject again, slightly, one feels impelled to say a good word for the Fuel Administration. Its maternal instinct is strongly developed. It reminds one—with reversed English—of a woman in Kenilworth, Ill. She is blessed with a son and encumbered with a husband. Really, the only thing against the husband, as far as she is concerned, is that he has persisted for years in working for a large corporation. His job is steady—perhaps too steady at times. His prospects depend entirely on the age of his superiors or a fortunate visit to them of the influenza and pneumonia running in double harness.

The boy is a different sort. He has spirit, imagination and ingenuity. He has a chance to win if he gets a broad running start. The woman's trouble is summed up in:

"If my husband has to wait for some one to die to win in a big corporation and if that big corporation has only a small share of the total business in its line, what chance will my son have if the Government takes over everything? It would take an earthquake, black cholera, bubonic plague and yellow fever to put the boy in a position where he could support a family."

The Fuel Administration looks at this same picture from the other side. It says:

"We have coaxed the retailers to buy coal. They did. Now the war is ending. They bought it at a high price. The price is going down. They will lose money.

"Also, the steam users have bought coal. They likewise will lose money. Perhaps we had better hang on to our job until we can make good."

That is either the maternal instinct, or the Fuel Administration likes the job of running coal. Having interfered with the law of supply and demand in the clouds, it wants to try to do the same thing in the subway. They will probably find that the people are romantically interested in aviation but not at all in the habits of angleworms and moles.

In this ambition, the Fuel Administration is not lonesome. There are many permanent boards in Washington which would cherish the opportunity to become the residuary legatee of the Fuel Administration. There is the cherished, but innocuous Department of Commerce, for example.

Two years ago, it might have saved all the political outbreak over coal if it had invited the coal men and the railroad men to work together with it to get more coal.

A year ago it might have undertaken to collect information about coal production costs and saved the annoyance of that long debate over coal prices.

This summer, it might have supplied data on the cost of living in the coal fields and ended a disgraceful dispute over that subject as a basis for the wages of miners. It did nothing of the sort. Evidently too much work was involved.

Now, however, when the work has all been done, it wants to assume the function of continuing the zones on coal and the matter of allocation.

The Bureau of Mines would like to take over the fuel conservation department of the Fuel Administration. There is some justification for that since it is scientific work and since the bureau is that sort of an organization.

What the ambitions of the Federal Trade Commision are has not been told. Maybe that bureau is in the same position as the gentleman who was returning home late one night and was resting against the proverbial lamp post, when a friend across the street called to him to "come on over."

"Come here yourself," was the reply. "I'm having trouble to stay where I am."

One little fact is coal will, perhaps, throw some additional light on the obvious truth that this has been a war of transportation facilities.

A month or so ago, General Pershing cabled to the United States that he wanted 900,000 tons of coal a month until further notice. The coal was here to be shipped, but there were no ships that could be spared to carry it over.

This last week, the report comes that rather than spare the ships, England is undertaking to supply the American Expeditionary Force with 600,000 tons a month. To do it England will use no coal to heat railway stations or cars this winter and will effect other home economies. And this with an abundance of coal in the United States. It has been truly a war of transportation facilities. The failure of the submarine was the destruction of Germany.

BUREAU OF MINES URGES THAT CRUDE OIL SUPPLY BE INCREASED

The Bureau of Mines has submitted, along with much other data, the following information in response to S. Res. 301, which reads as follows:

"Resolved, That the Bureau of Mines be directed to send to the Senate any information in their possession in regard to the production and consumption of crude petroleum and other mineral oils in this country, and the amount required for export and the estimated stocks on hand at the present time."

Statistics on the production and consumption of crude petroleum are collected by the United States Geological Survey, whereas the Bureau of Mines collects reports on the monthly production and stocks on hand of petroleum products. Such statistics, unfortunately, are not available prior to January, 1917, and estimates must suffice for August of this year.

The bureau's method of determining the production and the storage of refined products is by requesting the refiners of the country to submit individual reports each month. These reports show the amount of crude oil run to the stills, the partly refined oils, rerun, and the casing-head gasoline used for blending purposes. In addition, the monthly output and the stocks on hand of the following products are given: Gasoline, kerosene, gas and fuel oils, lubricating oils, paraffin wax, petroleum, coke, asphaltum, and miscellaneous oils.

The increase in the consumption of crude oil by refineries is as follows:

	Barrels.
Daily average 1917	863,374
Daily average first seven months 1918	874,964
Increase	11,590
Daily average of July, 1918	940,991
Increase over 1917	77,617

The following tabulation shows the changes in stocks of the principal refined products, excepting gasoline, from January 1 to August 1, 1918:

Kerosene, barrels	127,744 (decrease)
Gas and fuel oils, barrels	737,882 (decrease)
Lubricating oils, barrels	171 878 (decrease)
Paraffine wax, pounds	21,790,190 (decrease)

Consumption of gasoline is seasonal; that is, the demand is greater during the summer months, when motoring is in vogue, whereas during the bad weather of the winter months consumption falls off greatly. Just the opposite is true with the amount of gasoline stored. For instance, during the summer months of 1917 storage was at a minimum and the maximum was reached at the end of March, 1918.

Statistics are not available for the consumption, production, and stocks of gasoline for the month of August, but it is estimated that the consumption will about equal that of July, so that the stocks on hand at the end of August, 1918, probably were between 6,000,000 and 7,000,000 barrels.

In normal times such a discrepancy between production and consumption during the summer months would need cause no undue consternation for sufficient gasoline would be stored during the winter months to more than overbalance the heavy summer demand. At the present time, however, conditions are abnormal, and it is very difficult to forecast the future. The domestic demand for gasoline during the coming winter will likely be greatly reduced because of the falling off in automobile production and the necessity of economy among the people. On the other hand, our war demand for gasoline, both at home and abroad, probably will be tremendous, especially with the advent of spring, so that the situation really is serious, but not so much because of the present shortage as because of the forthcoming shortage of next year. We are not now producing enough crude oil to supply our refineries; gasoline stocks have been reduced to a two or three weeks' supply, and although the present situation has been well taken care of by the Fuel Administration, we are facing a tremendous demand next spring, and a demand as inflexible as it is great, for we must have adequate supplies of gasoline for our overseas forces and for those of our allies.

The need for conservation is apparent, and the American people should voluntarily forego the pleasure of needless automobile touring during these times. Such voluntarily conservation now may prevent the necessity of more serious action later. Furthermore, every step should be taken by the people and by their representatives not only to conserve our present supply of gasoline but also, if possible, to increase our future supply and the supply of the crude oil from which gasoline is made.

INCREASED STORAGE AUTHORIZED BY FUEL ADMINISTRATION

Increased storage of bituminous coal by consumers was authorized October 17 in regulations issued by the United States Fuel Administration.

All classes of consumers, except Class 1, as defined by the War Industries Board, were authorized to increase their reserve stocks, and those heretofore not on the preference list were authorized to lay in additional reserve supplies. Consumers in Class 2 may store their coal up to the limits now imposed on Class 1. Consumers heretofore in Class 3 will receive the facilities heretofore accorded to Class 2, and consumers in Class 4 have been allotted the opportunities heretofore reserved for Class 3. Consumers on the preference list are allowed the stocks formerly permitted Class 4 concerns.

The regulations, it was announced, will stand until further notice, and it was stated that, under them, an opportunity is afforded every industrial consumer for laying in at this time some reserve supply of bituminous coal.

Regulations in detail are as follows:

CONSUMERS IN CLASSES 1 AND 2

Maine, 135 days; Massachusetts, Vermont, New Hampshire, Northern New York, 105 days; Connecticut Rhode Island, Southwestern New York, 90 days; Southeastern New York and New Jersey, 60 days; Delaware, Eastern Pennsylvania Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida and Western Ohio, 45 days; Western Pennsylvania, West Virginia, Eastern Kentucky, Eastern Ohio, 35 days; Lower Michigan 90 days.

CONSUMERS IN CLASS 3

Maine, 120 days; Massachusetts, Vermont, New Hampshire, Northern New York, 90 days.

Connecticut, Rhode Island, Southwestern New York, 75 days.

Southeastern New York and New Jersey, 30 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida, Western Ohio, 40 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 30 days.

Lower Michigan, 75 days.

CONSUMERS IN CLASS 4

Maine, 105 days.

Massachusetts, Vermont, New Hampshire, Northern New York, 75 days.

Connecticut, Rhode Island, Southwestern New York, 60 days.

Southeastern New York and New Jersey, 40 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, North Carolina, South Carolina, Georgia, Virginia, Florida, Western Ohio, 35 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 25 days.

Lower Michigan, 60 days.

CONSUMERS NOT ON THE PREFERENCE LIST ARE LIMITED TO THE FOLLOWING STOCKS:

Maine, 90 days.

Massachusetts, Vermont, New Hampshire and Northern New York, 60 days.

Connecticut, Rhode Island, Southwestern New York, 45 days.

Southeastern New York and New Jersey, 30 days.

Delaware, Eastern Pennsylvania, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida, and Western Ohio, 30 days.

Western Pennsylvania, West Virginia, Eastern Kentucky and Eastern Ohio, 20 days.

Lower Michigan, 45 days.

There is no restriction on the stocks of screenings which may be accumulated by either preference or non-preference consumers; nor is there any restriction on the stocks of Indiana, Illinois, or western coal which consumers in any class may obtain.

Supervision of the accumulation of stocks in accordance with these limits will be exercised by the several state fuel administrators, who are authorized to make exceptions where special conditions make it necessary.

NEW SULPHURIC ACID PLANTS TO COST OVER $3,000,000

Two sulphuric acid plants are to be erected in Pennsylvania under the supervision of the Construction Division of the Army. The estimated cost for both plants is $3,000,000.

One plant will be located at Emporium, while the other will be erected at Mt. Union.

The Emporium plant will consist of eight units on a site which has been selected upon Driftwood Creek, close to the plants of the Aetna Explosive Company and the Emporium Iron Company. In the event that sufficient power cannot be obtained from the plant of the iron company, a one thousand kilowatt power plant will be erected. The estimated cost of this plant is $2,000,000.

The Mt. Union plant will be erected adjacent to the plant of the Aetna Explosive Company. Twenty acres of land have been purchased at $56 an acre. The contract has been awarded to the Leonard Construction Company. The preparation of all plans and specifications, in addition to the supervision of the work, will be under the direction of the Construction Division.

These plants will be operated by the Government.

No More Coal Distributors' Licenses

The United States Fuel Administration has announced that pending an investigation into the fact that the number of coal and coke distributors has increased almost 200 per cent in the last seven months, no additional licenses to distribute coal and coke will be issued.

It is believed that many of those who have embarked in the business of distributing coal and coke since the adoption of the purchasing agent's commission plan last March, contribute neither skill, experience nor anything else of value to the distribution of coal and coke in a manner necessary to the successful prosecution of the war.

To Save 1,500,000 Tons of Coal

As a war measure, effecting an annual saving of 1,500,000 tons o fcoal, the United States Fuel Administration anticipates that the skip-stop system for street cars will be in operation throughout the nation by September 15.

Realizing that this is a war of steel and that not a single ton of raw steel can be produced and transported without 5 tons of coal, and that the production of steel for guns and ammunition to bring a swift and victorious end to the war now waits on the supply of coal to steel plants, the United States Fuel Administration is assured that every citizen who is a car user will desire to use his influence to effect the largest possible aggregate saving.

WORK SUNDAYS TO OVERCOME LOSS OF OUTPUT FROM INFLUENZA

"Miners of the central Pennsylvania bituminous coal fields, numbering over 70,000, are coming to the aid of the Government, and have voted to work Sundays in an effort to get out the regular amount of fuel from that district in the face of the influenza epidemic, now affecting many mines," was the substance of a statement made by Charles O'Neill, district production manager, following the receipt of reports from more than 900 mines in this territory. It shows that the fathers and the brothers of the fighting men in France are going to do more than their duty in an effort to make certain the prompt and regular manufacture and shipment of supplies and munitions.

From all parts of the district telegrams and telephone messages came, telling of Sunday work by the miners, who volunteered, following the receipt of telegraphic requests, for such service. In those districts where no Sunday work was done the men decided to work from nine to ten hours, instead of eight hours, three or four days each week and two days with regular hours, that the output might be increased. Mines in which the epidemic is prevalent worked with reduced numbers of miners, although several districts, notably the Clearfield near DuBois, portions of Indiana, Jefferson, Clarion and Cambria, were obliged to suspend operations entirely early in the week.

"Conditions are now becoming serious as a result of the reduction in tonnage from central Pennsylvania," reads the statement of Mr. O'Neill. "Our coal field is the most important in the United States at the present moment. We must not falter at this time."

"For the week ended September 28 central Pennsylvania produced 1,306,408 tons," reads the statement. "Since then we have been losing tonnage owing to the influenza. For the week ended October 5 we produced 1,203,942 tons, or a loss of 102,430 tons, compared with the previous week; for the week ended October 12 we produced 1,234,337 tons, or a loss of 72,071 tons compared with the week of September 28, making a total shortage of 174,537 tons to October 12.

WAGES ARE READJUSTED IN THE ANTHRACITE FIELD

A readjustment of wages in anthracite coal fields in accordance with the stabilization of wages in various competing industries has been effected. The readjustment carries a wage increase along lines agreed upon by miners and operators and effects 150,000 miners.

INFLUENZA EPIDEMIC REFLECTED IN BITUMINOUS COAL PRODUCTION

The influenza epidemic not only cut the production of bituminous coal 800,000 tons for the week ended October 19, or 6.7 per cent, but reports also show that it caused a decrease in shipments from all fields with the exception of Western Pennsylvania.

Estimates furnished to the W. S. Fuel Administration by the Geological Survey, place production at 11,523,000 net tons, reaching the low level of last May, as compared with 12,338,000 net tons produced during the week ended October 12, and, while below the former week's production, it exceeded the figures during the corresponding week of 1917 by 1,300,000 tons, or 12.3 per cent. The average daily production was estimated at 1,920,000 tons, as compared with 2,056,000 net tons during the week preceding, and as against 1,702,000 net tons during the week of October 19, 1917.

The average daily production for the coal year to date is estimated at 1,992,000 net tons, which is slightly below requirements, and in order to make up the deficit, it is necessary that daily production during the balance of the coal year should be equivalent to 2,039,100 net tons, or 2.4 per cent in excess of the average daily production to date.

The influenza epidemic also caused considerable loss in the anthracite fields and production during the week ended October 19, estimated at 1,715,000 net tons, which is a decrease of 240,000 net tons, or 12.3 per cent, compared with the week of October 12. The daily average during the week is estimated at 286,000 net tons, as compared with 326,000 net tons during the preceding week, and as against 335,000 net tons during the coal year to date. The total production for the period of April 1 to October 19 is estimated at 57,373 net tons, compared with 56,736 net tons for the same period last year.

During the week ended October 12 the total loss by all causes from 100 per cent production was 18 per cent, of which car shortage comprised 7.9 per cent, labor shortage 6.3 per cent, mine disability 2.8 per cent, and all other causes 1 per cent.

WAR MINERALS ACT NOW IN FORCE—PROCLAMATION SOON

President Wilson signed the War Minerals Bill, October 4. The proclamation, which will assign matters of jurisdiction, probably will have been issued before this issue reaches the public.

ONE TON OF COAL

Will make 20,000 cartridges.
Will make 400 bayonets.
Will make 250 helmets.
Will make one-fourth ton of steel.
Will generate 200 kilowatt hours of electricity.
Will carry 15,000 soldiers in one ship 2 miles at sea.
Will move 50 freight cars 50 miles.
Will build 2-ton capacity of a ship.
Will land big shells at a given point in the German line for only one-half of a minute.
Will keep an artillery fight going for a fraction of a minute, if fighting is as severe as at Verdun, where the French, in about seven months, fired 60,000,000 shells, which means about 1,800,000 tons of steel, or about 9,000,000 tons of coal for their manufacture and transportation.
Will go half way toward putting an American fighting man across the sea into France ready for business.
Will make 1,400 to 1,500 pounds of coke and the following by-products:
  6,200 cubic feet of gas.
  23 pounds of amonium sulphate.
  6 gallons of tar.
  2 gallons of benzol.
  4-10 gallons toluol, for TNT.
  Drugs of many kinds.
  Disinfectants.
  Chemicals.
  Explosives.

9,760 tons of coal will gather the materials and build an 8,000-ton ship.

Every ton of coal brings peace nearer.

To Push Coke Production

W. S. Blauvelt, director of the Bureau of Coke, United States Fuel Administration, has been appointed a member of the Production Committee, working under James B. Neale, Director of Production. Mr. Blauvelt's special duties will be in the line of increasing and maintaining the production of coke.

Special emphasis has been laid on the necessity for a large and steady coke output by the Production Committee. Coke production has been running about 30,000 tons weekly below the minimum required for the government program, and both operators and coke workers have been asked to cooperate toward overcoming the deficit. Additional labor in the coke yards and 100 per cent efficiency on the part of coke workers and executives are relied upon to make up the shortage.

DOMESTIC CONSUMERS HAVE MORE COAL THAN EVER BEFORE

Dr. Garfield, in Formal Statement, Reviews the Coal Outlook for the Winter—Zone Plan Eliminates Cross Hauling

The coming winter's fuel situation as regards the people of the United States is outlined in a statement by Harry A. Garfield, United States Fuel Administrator. The statement presents statistics showing the relative production of fuel as compared with previous years and the conclusions warranted from these figures. Among its findings are the following:

The nation's fuel supplies, assembled in preparation for an unusually severe winter are adequate, and well distributed.

Continued full and loyal cooperation from the public in conservation, and from all producing and distributing agencies is necessary.

The coal stocks on hand are greater than ever before; the needs also are greater than at any previous time.

In coal deliveries, the fuel program to date of the Administration has been exceeded through the cooperation of the public, the mine workers and operators, the Railroad Administration, the War Industries Board and other agencies.

More domestic coal is now in the hands of consumers and dealers than at the corresponding period in normal years.

By a zoning system coal has been supplied throughout the country from the nearest available mines, eliminating cross-hauling and tremendously facilitating distribution.

For the country at large there is an average coal supply in stock sufficient for eight weeks. Points furthest from the mines have been supplied with the greatest quantities. The Upper Great Lakes districts, where winter cuts most deeply into transportation, has received the greatest proportionate supply, and points nearer to mines are now being cared for.

Fewer mine workers than ever before have produced 38,000,000 tons more of coal in the first six months of the present coal year than were produced in the corresponding period last year.

Had less essential industries been permitted to operate without curtailment of fuel supply the available stocks would have been seriously reduced.

The oil and natural gas situation will probably be somewhat acute because of the steadily increasing domestic and overseas demand for oil and a decrease in the production of natural gas. The oil problem is largely one of transportation.

The present coke supply is slightly less than the maximum demand of blast furnaces and war industries.

"The Fuel Administration approaches the winter season well organized, with stocks of coal on hand far in excess of the stocks of other years," the report says. "We are ready for an unusually severe winter, but we are still and shall continue to be dependent upon the cooperation of the people of the United States in conserving fuel and upon the several agencies concerned in the production and transportation of fuel to enable us to carry through our program to the end of the year.

"The people of the United States have demonstrated their willingness to make any sacrifice necessary, but they must be satisfied that what is asked is necessary and reasonable. The highest testimony to democracy has been furnished by the way in which the people of the United States have met the requests of the Food and Fuel Administrations, even when those requests have imposed upon them personal inconvenience and sacrifice."

The full statement is as follows:

"By the United States Fuel Administrator, Harry A. Garfield.

As winter approaches, the people of the United States desire to know what they may expect from the Fuel Administration, and they have a right to know. The experiences of last winter, naturally, tend to make people apprehensive. While it is not likely that the coming season will be as severe as last, the Fuel Administration has proceeded on the assumption that it might be and has made its plans accordingly. The following are the facts presented in briefest form.

First, as to domestic fuel. Anthracite (hard) coal is the domestic fuel of the East. Hard coal all comes from Eastern Pennsylvania. To prevent long hauls and unnecessary use of railroad locomotives and cars for the transportation of coal, the country has been zoned. The Railroad and Fuel Administrations have united in setting up the zones. In a general way, coal must be taken from the nearest fields, although certain kinds of coal necessary for special manufacturing purposes cannot be thus limited. The result of this arrangement is that people nearest (radius hard to define) the anthracite coal fields and all of the distant New England points are to burn hard coal. This happens not to be regarded as a hardship. But even if it were, this rule would have to be enforced. Also, because of the possibility of transporting coal by water to upper lake ports, a considerable part of the northwest is supplied with anthracite, while the allotment to certain other states has been cut down to a fraction only of he normal supply, the balance being made up with bituminous (soft) coal.

The program of distribution of domestic coal for the entire year calls for 51 258 029 tons (this includes coal for manufacturing and for gas—about 5 million tons in all) of anthracite coal which is 2,062,323 tons more than were distributed during 1916. (1916 was the last normal year for coal distribution. It was, therefore, taken as the basis in making the allotment for 1918.) Up to the first of October 26, 388,151 tons had been delivered. (In the northwest the coal has either been delivered or is en route.) The following schedule tells the story in brief:

States.	Allotment for the year in tons.	Delivered October 1.
New England......	10,331,000	5,537,779
Middle Atlantic....	31,314,754	15,246,331
Virginia	102,400	73,640
Western	3,481,945	1,835,398
Northwestern	2,374,000	*1,701,561
Canada	3,602,000	1,963,700
Export (principally Newfoundland and Cuba)	51,930	29,742
Total............	51,258,029	26,388,151
Allotment for half year	25,629,014	

*The coal for the Northwestern district has either been distributed or is enroute.

It will thus be seen that to October 1st the Fuel Administration had exceeded its program of deliveries by 759,136 tons.

But some dealers have found themselves without a supply of anthracite and this has inconvenienced a great many people. This was due to the fact that some dealers had moved, others had started in business this year, while still others, some because of a break in trade relations and others because their credit was not good, had not received their usual supply. This difficulty has, however, largely been overcome, so far as communities, if not individual dealers, are concerned.

Under the arrangement now in existence if any domestic consumer finds himself short of coal, he should apply to his local Fuel Administrator, giving him the name of the dealer to whom he has applied and the circumstances of his case. The local Administrator will present the matter to the State Fuel Administrator who will issue the necessary directions to the Anthracite Distribution Committee.

Second, as to bituminous coal.

While anthracite is the domestic fuel of the east, the rest of the country depends upon bituminous coal. About 75,000,000 tons of bituminous coal are used annually by domestic consumers, including apartment houses, but not including coal used for making gas and electricity. The facts as to supply are given below in connection with the industrial use of bituminous coal. I need say here only in brief that the several parts of the country are now well supplied with bituminous coal for domestic use. It must not, however, be understood that domestic users can afford to waste either hard or soft coal. Rigid economy is necessary. If the instructions issued from time to time by the Fuel Administration for the care of furnaces and the heating and ventilation of houses are followed, we shall come through the winter without hardship.

Again, let me call attention to the fact that more domestic coal is now in the hands of consumers and dealers than at the corresponding period in normal years.

Industry is chiefly dependent upon soft coal. Therefore, its consumption has been much more largely increased by the war than the consumption of hard coal. The following schedule tells the story of increased production of soft coal since 1913:

PRODUCTION OF BITUMINOUS COAL IN THE U. S.

Year.	Short tons.	Increase over previous year, tons.
1913	478,435,297	(decrease)
1914	422,703,970	55,731,327
1915	442,624,426	19,920,456
1916	502,519,682	59 895 256
1917	551,790,563	49,270 881
1918	600,000,000*	*48,000,000

Increase 1918 over 1913—122,000,000 (approx.)

*Estimated.

The enormous increase for the present year has been made possible by cordial cooperation between the three agencies involved, namely, the mine workers and operators, the Railroad Administration and the Fuel Administration. What is our situation today? The coal year begins April 1st. During the first six months, to October 1st, we had produced 37,000,000 tons bituminous more than we produced in the corresponding period last year. By produced I mean placed in railroad cars and delivered either as coal or coke. Coal is not produced in any commercial sense until it has been dug from the mine and delivered on board railroad cars.

What the public wishes to know is whether this coal is being distributed in a way to meet the needs of the country and whether we have been far-sighted enough to stock coal against the winter needs.

The important item here is how much coal have we managed to store up. Briefly, the answer is more than ever before. Taking the country as a whole, we have in stock coal sufficient for eight weeks. Obviously stock piles must be greatest at points farthest from the mines.

Never until the present year has an attempt been made to ascertain the stocks on hand. The Statistical Bureau of the Fuel Administration receives a weekly postcard report from each of the great and most of the small industrial plants and coal dealers of the country. Tens of thousands of small manufacturing establishments are included in the weekly returns of public utilities supplying them with power and light. Each card states the amount of coal on hand at the beginning of the week, the amount received and the amount used during the week and the balance on hand at the end of the week. Over an average of more than ten thousand cards are received and tabulated daily. Errors and omissions are diligently followed up. Final tabulation of these reports are, at the outside, only six weeks behind. The following schedule tells the story of requirements for the year, the deliveries for the first six months; and the stocks on hand in the several States.

	Net tons.
Total estimated requirements of bituminous coal—April 1 to September 30, 1918, without allowance for conservation or curtailment of industry	361,730,000
Production of bituminous coal —April 1 to September 30, 1918	312,282,000

Number of weeks' stocks of bituminous coal on hand, October 1, of industrial, public utilities and coal dealers:

States.	No. of Weeks.
Alabama	2
Arkansas	10
Arizona	4
California	6
Colorado	4
Connecticut	17
Delaware	10
Florida	10
Georgia	6
Idaho	5
Illinois	6
Indiana	5
Iowa	6
Kansas	5
Kentucky	3
Louisiana	7
Maine	17
Maryland	5
Massachusetts	19
Michigan (upper peninsula)	20
Michigan (lower peninsula)	12
Minnesota	20
Mississippi	8
Missouri	6
Montana	5
Nebraska	4
Nevada	15
New Hampshire	18
New Jersey	10
New Mexico	4
New York	6
North Carolina	5
North Dakota	11
Ohio	6
Oklahoma	9
Oregon	3
Pennsylvania	7
Rhode Island	12
South Carolina	8
South Dakota	7
Tennessee	3
Texas	4
Utah	4
Vermont	15
Virginia	4
Washington	4
West Virginia	4
Wisconsin	9
Wyoming	5

Note:—The upper peninsula of Michigan, and the States of Wisconsin and Minnesota and, in part, North Dakota and South Dakota, have their winter supply of coal assured through the movement of coal to the head of the Lakes, which is moving forward on schedule.

Stocks on hand for each State are reported by industries so classified as to enable me to know whether, for example, the stocks of by-product coal is sufficiently large to meet beyond peradventure the steel requirements of the War Industries Board. In this connection, it is interesting to know that the stocks of coal for by-product coke ovens average four weeks, ranging from one week at points in the coal fields to fifteen weeks' supply for by-product ovens at the most distant points, such as at Duluth and Superior.

Although accurate statistics have never been taken until this year, manufacturers agree that never before have we had larger stocks of coal on hand at the beginning of winter.

The clean coal campaign, inaugurated to relieve users of bituminous coal from the handicap they suffered last winter in the use of improperly graded or entirely unprepared coal, is being rigidly prosecuted. During the week ending October 26, thirteen mines were ordered to cease shipping. Prior to that time, eighty-six mines had been closed; sixty-seven because the producers would not properly prepare their coal for shipment, and nineteen because the coal produced was entirely unusable. In addition to these mines closed, several hundred mines have been ordered to cease taking coal from poor veins.

Since the advent of the Fuel Administration, inspections numbering 15,369 have been made. The Inspection Force now comprises seventy-nine U. S. Fuel Administration Inspectors and one hundred and six State Inspectors working in coperation with them. Mines under inspection by other governmental departments, such as the Pocahontas fields, under supervision by the Navy Department, do not receive a duplicate inspection by the Fuel Administration.

The present supply of coke is slightly less than the maximum demand of blast furnaces and war industries.

There are at present 405 blast furnaces in the United States in shape to run; their monthly requirements being 4,250,000. The blast furnaces take about 95 per cent of the total production of coke, this percentage amounting to 4,100,000 tons. The real shortage at present, due to certain number of furnaces being "out of blast," is about 75,000 tons per month.

The war program demanding that the maximum number of furnaces be kept in operation, there has been but very slight accumulation of stocks. The distribution is being handled by telephone and telegraph direct from Washington, shipments being diverted as necessary to put the coke where most imperatively demanded The failure to meet the maximum production requirements is due not to any lack of ovens, but to shortage of labor at ovens and in mines having ovens."

The oil situation is briefly, this:

The oil and natural gas situation for this winter will probably be somewhat acute. owing to the decrease in production of natural gas as compared with last year and the expected increase in consumption. and in the case of oil to the steadily increasing domestic and overseas demands.

The successful solution of the oil problem is largely one of transportation. tank ships are very scarce and existing pipeline's are now running practically to capacity.

Additional pipeline capacity is being built into the new field at Ranger. Texas, but the transporting of this oil from Gulf ports to North Atlantic ports will involve additional tank steamers not now easily available.

It is essential to limit additional consumption wherever possible, pending construction of additional transportation facilities either in the form of pipelines tank ships or tank barges.

Oil stocks on Sept. 1, 1917, and Sept. 1, 1918, were, for gasoline, kerosene gas oil and fuel oil as follows:

Stocks.	Gasoline and naphthas.	Kerosene.	Gas, oil and fuel oil.
Sept. 1, 1917	6,025 000	11 600 000	11,375,000
Sept. 1, 1918	6,000 000	9,400,000	10,500,000

As to labor. It is a remarkable fact that although 38,000,000 tons more of coal, anthracite and bituminous, have been produced in the first six months of the present coal year than in the corresponding period of 1917, there have been fewer laborers in the field. 50,000 to 60,000 mine workers have gone into military service and 50,000 to 60,000 more have left the mines for more remunerative work in other fields. The response of those who have remained to the appeals of the President and of the Fuel Administration and their appreciation of the fact that the mine worker is vitally important to the soldier in the trenches, accounts, in large part, for the production results. The mine workers have merited the praise just received from General Pershing by cable. "We soldiers know that we can depend upon you to do your part as we are doing ours." The relation of coal and steel to war is new. A hundred and fifty years ago coal and steel were relatively negligible items in war programs, that is, as compared with the soldier in the field. To bring the new relation home to the hundreds of thousands of mine workers of many nationalities and of varying degrees of familiarity with political and industrial conditions, has been no small task. The Labor and Production Bureaus of the Fuel Administration deserve the greatest credit for their work in this direction.

But labor alone cannot produce coal. As stated above, coal is produced in a commercial sense only when it is dug out of the ground and loaded into cars. Coal in the mine or dumped on the ground at the mouth of the mine. is of as little value as Robinson Crusoe's money. It must be transported to the bin of the consumer and to the furnace if it is to meet the need. If the Railroad Administration had not met the problem of transportation the results achieved would not have been possible. The elimination of competitive use of tracks. terminals and equipment,—in other words. the taking over for the period of the war of the competing railroad systems and their operation under a single administrative head, has contributed more largely than any other single factor to the result obtained

But only of less importance was the elimination of long hauls and cross hauls which constituted a waste of both motive power and of car tonnage. The importance of this is recognized when it is understood that more than one-third of the entire tonnage of our railroads, even in ordinary times, is used for the transportation of coal.

From the foregoing, it may be inferred that the fuel situation is so well in hand that vexing economies are no longer necessary. But this is far from true. Had less essential industries been permitted to operate without curtailment of fuel supply, the stocks on hand would have been seriously reduced. We have been able to stock up because we have saved as well as because we have produced more coal than at any other time. In cooperation with other war administrations, especially with the War Industries Board and the Food Administration, the Conservation Bureau of the Fuel Administration has made an estimated saving thus far of 12,700,000 tons of coal for the first half of the coal year, but as the saving each month is constantly increasing, there will be a much greater saving during the next six months, which includes the winter, so that it expects, during the entire year, to be able to report a saving of 30,000,000 tons.

The Fuel Administration approaches the winter season well organized, with stocks of coal on hand far in excess of the stocks of other years, the report says. We are ready for an unusually severe winter, but we are still and shall continue to be dependent upon the cooperation of the people of the United States in conserving fuel and upon the several agencies concerned in the production and transportation of fuel to enable us to carry through our program to the end of the year.

The people of the United States have demonstrated their willingness to make and sacrifice necessary, but they must be satisfied that what is asked is necessary and reasonable. The highest testimony to democracy has been furnished by the way in which the people of the United States have met the requests of the Food and Fuel Administrations, even when those requests have imposed upon them personal inconvenience and sacrifice.

New Fuel Administrator for South Carolina

B. E. Geer, of Greenville, deputy fuel administrator for South Carolina, has been appointed by the United States Fuel Administrator, H. A. Garfield, fuel administrator for that state, to succeed B. B. Gossett, who resigned recently to accept a commission as captain in the chemical warfare branch of the Army. Mr. Gossett had delayed going into the Army for some time at the request of the Fuel Administration.

Mr. Geer, who is about 45 years of age, was for many years head of the department of English at Furman University. For the last few years he has been actively and successfully engaged in the manufacture of cotton goods, and at the same time has held the office of treasurer of Furman. Mr. Gossett was very warm in his endorsement of Mr. Geer as his successor as fuel administrator.

The Fuel Administration's office will be moved to Greenville after November 1.

Exportation of Second Hand Iron or Steel Articles

The War Trade Board announces, in a new ruling (W. T. B. R. 290), that on and after November 1, 1918, all applicants for licenses to export second-hand articles composed of iron or steel will be required to state on Form X that the commodity to be exported is "second-hand." Failure on the part of the applicant to describe second-hand material as such will be regarded as an inaccurate description of the goods and the applicant will be subject to the prescribed penalty therefor.

SIX MONTHS' FIGURES SHOW BIG INCREASE IN PRODUCTION

Evidence of the efficiency with which coal miners and operators responded to America's call for more coal as a war requisite is contained in a statement of the United States Fuel Administration, giving the revised coal production figures for the first six months of the statistical coal years 1916, 1917 and 1918. The coal year begins April 1. From April 1, 1918, to September 30 the bituminous mines of the country produced 312,282,414 tons, by far the largest output for six months in history.

The output of bituminous coal for the first six months of this coal year was an increase of 79,200,848 tons as compared with the corresponding period of 1916—the year before the United States entered the war. That is an added output of approximately 34 per cent, figured on the basis of 233,081,566 tons for the period April to October of 1916. The increased production this year, compared with the first six months of 1917, was 37,745,242 tons, or 13 7-10 per cent. The greatest enlargement of output was achieved in the months of July, August and September, this year, indicating that there is a steadily rising tide in the win-the-war fuel. The rate of increase for those months was 17 4-10 per cent over 1917.

Supply even now is not sufficient to meet all domestic and war requirements. The coal needed for the first six months of 1918 was 11,703,586 tons more than was sent to the surface. It is pointed out also that the need for continued careful conservation of fuel is still urgent. Demand for American coal will be extremely heavy for a long period to come. The reconstruction work in France, Belgium and Serbia—work to repair the ravages of the Hun invaders—will call for enormous quantities of coal, a great part of which must be supplied by American mines.

Gold Report About Ready

A committee consisting of Hennen Jennings (chairman), J. H. Mackenzie and Charles Janin, of the Bureau of Mines, and H. D. McCaskey and F. L. Ransome, of the Geological Survey, appointed by the Secretary of the Interior to make a thorough study of the gold mining situation in the United States in relation to the increased cost of gold mining operations and the decreased output of gold, and to consider different measures that have been proposed for the relief of the industry and for the stimulation of gold production, is about to report.

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SENATOR KEARNS VICTIM OF APOPLEXY FOLLOWING ACCIDENT

Former United States Senator Thomas Kearns, who was a director of the Utah Chapter, American Mining Congress, since its organization, died at his home in Salt Lake, October 18. About a week before his death, Senator Kearns was struck by an automobile which fractured a bone in his leg and bruised him considerably. He visited his office the following day, but the next morning suffered a stroke of apoplexy from which he did not recover.

Senator Kearns had been a conspicuous figure in the mining world for many years and was also prominent in political life and as a philanthropist.

He was born 56 years ago in Ontario, Canada. When 10 years old he went with his parents to Nebraska, where he worked on a farm for several years. He then went to the Black Hills and worked as a miner in the Homestake Mine until 21 years of age, when he came to Utah and obtained employment as a miner in the Ontario Mine at Park City. In addition to working his full shifts in the Ontario, he prospected constantly and learned all he could about mining. He went through seven years of unsuccessful prospecting, but fortune finally smiled on him through the Mayflower Mine of which he was one of the owners. Later he became one of the owners of the famous Silver King, now known as the Silver King Coalition, of which he was vice-president and general manager at the time of his death.

He was elected United States Senator to fill a vacancy in 1901 and served four years.

His mining and other operations made him very wealthy. He invested heavily in other western enterprises, including real estate, farms, ranches, etc., and was a director of two Utah banks and a director of the Salt Lake Route Railroad. He was also half owner of the Salt Lake Tribune and was the owner of the Kearns Building in Salt Lake City. His residence at Salt Lake is one of the finest in the west. Among his philanthropies the best known is the Kearns St. Ann's Orphanage, founded by Senator and Mrs. Kearns many years ago.

Senator Kearns felt keenly the recent loss of his warm friend and business associate, David Keith, who died within the last year. They were co-owners in many important enterprises and had been closely associated for a generation.

Besides his widow, Senator Kearns left three children, Lieut. Thomas Kearns, Jr., of the aviation service; Edmund J. Kearns and Miss Helen Kearns.

FIFTY PER CENT COPPER CONCENTRATES NOW MAY BE IMPORTED

The ruling of the War Trade Board (No. 211) affecting the importation of copper ore has been so far modified by a new ruling (W. T. B. R. 249) as to permit the importation of copper concentrates containing 50 per cent or over of copper from non-enemy countries, instead of 60 per cent or over as in the former ruling. The previous restriction prohibiting the importation of ore, except from Cuba, Canada, or Mexico, and of copper concentrates containing less than 50 per cent of copper, except from the above countries, remains in force. There is no restriction upon the importation from any non-enemy country of copper matte, blister copper, or copper concentrates containing 50 per cent or more of copper.

READJUSTMENT OF WAGES IN THE ANTHRACITE DISTRICT

The Conference of National Labor adjusting agencies has authorized the following:

Since the beginning of the war there has been a depletion of mine workers in the anthracite coal fields from 180,000 to 144,000, and under existing conditions, further depletion, which will seriously affect the output of coal, seems to be inevitable.

This situation has grown out of the fact that since the anthracite wage agreement was entered into last December by the operators and mineworkers with a pledge to the Fuel Administration that it should continue for the duration of the war, events have made a continued performance of the obligation a real hardship to the mine workers. Nevertheless, the mine workers and operators who have adhered to the undertaking have patiently exerted their energy to maintain the output of coal. They regard the obligation as binding, whatever its hardships. But considerations other than the undertaking of the men are involved. For time has revealed conditions that were not anticipated last winter with the result that there is a movement of men away from the mines to other war industries and a growing feeling of restlessness among the men at the mines. To continue the arrangement of last winter without any readjustment is to disregard a situation that threatens to interfere with the successful prosecution of the war.

Therefore, with a view to ascertaining all the facts and suggesting a remedy for the situation, representative anthracite operators and mine workers have been meeting, in accordance with your suggestion, with Dr. Garfield and his representative of the Fuel Administration. They have thoroughly considered the available figures in regard to the increase in the cost of living since last winter, and relations between wages in the anthracite and bituminous fields, and between anthracite and other war industries. As a result of these studies and deliberations, a plan of adjustment designed to check depletion and unrest in the anthracite coal fields has been submited to this conference for our independent judgment and recommendation in view of the labor situation of the entire country.

After careful study of the suggested plan of readjustment and the grounds upon which it is based we are convinced that the interest of the whole nation compels a readjustment of the wages in the anthracite coal fields.

We, therefore, recommend the readjustment of the anthracite wage scale, as provided in the plan submitted to us, which establishes, in substance a scale of wages ranging from 42 cents per hour for laborers outside of the mine to estimated average earnings for contract miners of approximately $6.60 per day. This scale we have found to be in line with the wages already established by governmental agencies for other industries and are convinced that its adoption will act as a stabilizing influence. Without such a readjustment, the vital needs of the country for coal are jeopardized. With such readjustment there should be no further drains on the labor force of the anthracite mines and production should be maintained and, probably increased.

Before reaching the conclusion that the readjustment we herein recommend is necessary to meet the national situation, we satisfied ourselves that in no other way can the necessary supply of labor be maintained or stability in the industry be assured. Prior to the European war labor in the coal fields was largely recruited through immigration. Since 1914 this flow has entirely ceased. Therefore, especially in view of the increased need of coal by the country, it is essential that the resident labor supply of the region be retained by the anthracite industry. The mine workers are fully alive to the country's need for production and their organizations have carried on an intensive campaign for output. The efficiency of the workers is attested by the fact that, although depleted by 36,000 since the war, the production of coal has been maintained. It is gratifying to know that the mine workers have generously given up for the period of the war the observance of religious and other holidays in order to continue at work.

One general aspect of the anthracite situation was made clear in our meetings, which we deem very pertinent for the consideration of the Fuel Administration. It appears that there is lacking the basis for scientific knowledge in regard to some of the underlying facts of the industry, upon which issues as to wages and output must finally be decided. Therefore, representatives of the mine workers, as well as of the operators urged upon us that steps should at once be taken whereby systematic and authoritative information will be had, for the future, in regard to such fundamental questions as comparative earnings, labor turnover, continuity of employment and sufficiency of output. It was agreed that we must create conditions which will assure greater continuity of employment, greater regularity of work, greater quantity of output, at the same time that we fully observe all those safeguards which should protect the workers in this hazardous industry. In a word, the conditions of the industry must be stabilized. Therefore, the attitude of mind of those in the industry in regard to those conditions must be organized. As a necessary prerequisite we must have that basis of knowledge upon which alone we can act wisely and with justice.

Those represented were: Felix Frankfurter, chairman, representing the Secretary of Labor; from Emergency Construction Wage Commission—John R. Alpine, Joseph H. Alexander, Colonel Q. M. C.; from Fuel Administration—Rembrandt Peale, P. B. Noyes; from Labor Department, Division of

Mediation and Conciliation, John B. Lennon; from National Adjustment Commission, Robert P. Bass; from National Harness and Saddlery Adjustment Commission—Samuel J. Rosensoh, Major, J.A.G., U. S. A., office of Secretary of War; W. E. Bryan; from Navy Department—Albert L. Norton, Commander U. S. Navy; from Railroad Administration —W. T. Tyler (except as to the semi-annual revision to meet changes in cost of living to which the Railroad Administration object); from Shipbuilding Labor Adjustment Board—A. J. Berres, V. Everit Macy; from War Department—F. W. Tully, Major Ordnance. Detailed to office of Secretary of War.

WAR LABOR BOARD MAKES AWARD IN GENERAL ELECTRIC CASE

In the controversy between the employees and the General Electric Company, of Lynn, Massachusetts, the National War Labor Board reached a unanimous conclusion. The Board ordered the reinstatement of twelve of the employees who had been dismissed before the strike, on the ground that the dismissal was due to a discrimination against the union. The Board sustained the discharge of White and Peterson, who were dismissed after the strike because of insubordination and breach of discipline. Three of the men reinstated, the Board had to admonish, due to evidence of insubordination that in their return they should conduct themselves with great caution and not regard themselves as favored by reason of reinstatement.

The Board directed that a system of collective bargaining and shop committees should be forthwith put into operation; that if the committees thus selected could not agree, the question should be taken up by an examiner reaching the Board by appeal for its ultimate decision.

The Board recommended the adoption of the Schenectady system of hours and wages insofar as applicable to the Lynn locality. The changes in pay are to be retroactive to the 17th of July.

Following is the award:

In the case of the Employees vs. the General Electirc Company, Lynn, Mass., the National War Labor Board orders:

COLLECTIVE BARGAINING

1. That there be elected forthwith shop committees, in conformity with a plan approved by the Board.

2. That the Secretary of the National War Labor Board shall appoint an Examiner who shall supervise and conduct these elections.

3. That a General Committee shall be created, consisting of three members to represent the workers and three members to represent the employers. The members of the General Committee representing the workers shall be selected by the members of the shop committees acting jointly, under supervision of the Examiner.

4. That the employers shall forthwith select their representatives to meet with the representatives of the workers on the shop committees, and the General Committee.

WAGES

5. Within five days after their selection, the representatives of the workers and employers on each shop committee shall meet for the purpose of adjusting all disputes and matters of controversy in this case which affect the wages of the shop represented by said committee.

The Board suggests that in the adjustment of these wages they should be made comparable with those awarded by the Board in the Schenectady case.

Failure to reach a decision on any matters coming before the Shop Committee within forty-five days from the time the matter was first taken up, it shall be referred to the General Committee for adjudication. In the event of failure of this Committee to reach a decision, the matter shall be referred to the Examiner of the National War Labor Board, who shall promptly report the matter to the National War Labor Board for decision.

6. Within five days after its selection, the said General Committee shall meet for the purpose of adjusting

(a) All matters referred from the shop of departmental committees; and

(b) All matters in controversy in this case which affect wage conditions of the plant as a whole, but which have not been settled through the medium of the Shop Committees.

7. In any case where there is doubt of dispute between Shop Committees and the General Committee as to original jurisdiction of matters to be adjusted, the question of jurisdiction shall be decided promply by the Examiner of the National War Labor Board.

RETROACTIVE PAY

8. Wage increases made in accordance with the provisions of this award shall be retroactive to July 17 1,918, and the company shall be given until December 1st, 1918, to make such retroactive payment.

HOURS OF LABOR

9. The Board decrees that the hours of labor shall be the same as at Schenectady.

ALLEGED DISCRIMINATION

The right of the workers to organize in trade unions and bargain collectively through a chosen representative is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the employer in any manner whatsoever.

10. That Leslie Taylor, Joseph Glassett, John J. Kerivan, James Hanson, John J. Connolly, Edwin Murch, Herbert Pogson, Rufus Hartley, Walter Putnam, Raymond Shattuck and Arthur E. Clark shall be reinstated in their employment at the same jobs, or work of similiar nature to that which each was doing when dismissed, at rates of pay not less than each was then receiving, nor less than the rate established for the work upon which each is re-employed (plus any increases which such work may receive under the terms of this award without loss or seniority rating or bonsues and with pay for all time lost by reason of dismissal, minus amount, if any, of intervening earnings). Such reemployment by the company shall be dependent upon each employe presenting himself to the company within five days after the receipt of this award by the parties to the case.

11. That the reinstatement of John F. Peterson and William H. White is not ordered, as they did, for the reason that they not only ordered the employes to cease work, but directed them not to leave the shop, but to sit in their seats and do nothing, while at the same time the foreman was directing them to continue work or leave the shop. These men apparently had good records up to the time of this occurrence, and this action by the Board should not, therefore, prejudice their future opportunities for employment.

12. With reference to Leslie Taylor, James Hanson and Edward Murch, whose reinstatement we adjudge, the Board has been in some doubt; but to reach a unanimous conclusion, their names have been included in the list to be reinstated, with a warning to these men that the evidence of their insubordination has been such that they should be duly cautioned and not assume by their reinstatement that they occupy a favored position by reason of the order.

ADMINISTRATION OF AWARD

13. The Secretary of the National War Labor Board shall assign an Examiner to supervise the execution of this award. Should a controversy arise in respect to the interpretation of the award, an appeal may be made to the Board, and shall operate as a stay, or otherwise, according to the rule of the Board.

PERIOD OF AWARD

14. This award shall be in effect for the period of the war; provided, that on February 1, 1919, and at periods of six months' intervals thereafter, either party may reopen the case before the National War Labor Board for such readjustment as changed conditions may render necessary.

GASOLINE STOVE MAKING STOPPED AS CONSERVATION MEASURE

Discontinuance of the manufacture at this time of gasoline stoves, because of the heavy war and industrial uses of gasoline, is advised by the War Industries Board.

The Priorities Division, in granting priority to the oil and gasoline heating and cooking devices and appliances industry, requires a pledge of the manufacturers to reduce consumption of iron, steel, brass, copper and aluminum used in the manufacture of their products to a basis of not exceeding 50 per cent of six-twelfths of the 1917 consumption.

In reference to the discontinuance of the manufacture of gasoline stoves when present stocks are exhausted, the Priorities Division says:

"The war and industrial uses for gasoline are so heavy at this time that it is advisable to ask you to discontinue the manufacture of gasoline stoves during the present emergency and use the materials which are ordinarily applied to the manufacture of such products to the manufacture of gas heating and cooking devices and appliances. This will not be construed as interfering with your working up materials on hand which are suitable only for the manufacture of gasoline stoves. It may be that the lines of some of your manufacturers contain substantially no other products than gasoline stoves. The shutting down of the plants of such manufacturers is to be avoided if possible, but such manufacturers are urged to get into war or other important production, so that they may lay as little burden as possible upon the gasoline supply. Until their resources can be converted to the manufacture of such new products they may continue to make gasoline stoves within 50 per cent limitation, but they are urged to keep their production of stoves as low as possible."

New Bureau of Prices Head

Harry A. Garfield, United States Fuel Administrator, has announced the appointment of W. D. Tyler as acting director of the Bureau of Prices of the Fuel Administration, to fill the vacancy caused by the resignation of E. Q. Trowbridge, who received a commission as captain in the gas and flame division of the Chemical Warfare Corps of the United States Army, and left recently for Camp Humphrey, Va., to train.

Mr. Tyler comes to the Fuel Administration with thirty years' experience in the coal business. His experience was gained in the Pocahontas fields of southern West Virginia and southwestern Virginia, where he spent seventeen years in mining and real estate work.

EIGHT-HOUR DAY RULING UPHELD ON REHEARING

Walter Clark, Chief Justice of the Supreme Court of North Carolina, umpire for the National War Labor Board in the case of the employees versus the management of the Wheeling Mold and Foundry Company, has denied the motion of Walter Drew, counsel for the company, for a rehearing of the decision of September 16, 1918, applying the eight-hour day to the operation of the plant. The decision forbids the working of any employee more than eight hours in any one day, except in case of emergency, and provides that an emergency shall exist only when a committee, representative equally of employer and employees, declare it to exist. Following is Justice Clark's denial of the company's appeal:

"This is a petition to rehear the decisions of the board in this case, filed 16th September, 1918. The chief ground urged is that the agreement passed upon had not been actually adopted by the parties.

"It is true, it was a proposed agreement, but the argument on both sides presented the question whether the agreement, if adopted, would mean an actual eight-hour day, or a basic eight-hour day. If it was the former it was acceptable to the plaintiffs, the employees. If it meant the latter, it would be accepted by the defendant company and imposed upon the workers.

"The case was thoroughly argued by both sides with great force and ability, and the points at issue were clearly understood by the board and the umpire. Upon hearing the case, the decision was that an actual eight-hour day should be adopted, and as a protection against overtime 'on emergencies' it was ordered that nothing should be held an emergency unless so declared by three votes on a joint board to consist of two members to be selected by the employers and two by the employees.

"On a full and careful review of the arguments then made and the questions presented by the petition to rehear, the opinion and the award heretofore made are in every respect confirmed.

"Soon after this opinion and decision of the board had been rendered, and, possibly, in consequence of it, the great United States Steel Corporation, with 300,000 employees, adopted the eight-hour law and other companies are doing the same. By reason of its position as a great financial and progressive institution, the action of the United States Steel Corporation marks a distinct advance toward the universal adoption of the eight-hour day, especially if there shall go with it the provision of the award in this case that there shall be no evasion of the 'eight hour' day upon the declaration of the employer alone of emergency, but the emergency shall be declared by a majority of the joint board appointed by the employers and employees as stated in the award in this case.

"Long since, Mr. Henry Ford, another progressive and successful employer of large bodies of men, adopted voluntarily the eight-hour day, which is the end toward which Industry is inevitably and irresistibly moving, by reason of it being justice to the employees and no less to the real interests of the employers and managers of our great industries."

The motion to rehear is over-ruled.

MUCH FUEL OIL WASTED, SAYS THE BUREAU OF MINES

Fuel sufficient to operate the railroads of the United States for one month is being absolutely wasted every year by the users of fuel oil.

Five times the fuel necessary for all the Federal Government, including its Navy and Army, is being thrown away by these same users of fuel oil.

The fuel being squandered, and recklessly, too, by these same fuel oil users is approximately the entire output of coal for the State of Colorado in one year's time.

These are the startling conclusions that have been drawn by experts of the Bureau of Mines, Department of the Interior, who have been cooperating with the Fuel Administration in a general survey of the use of fuel oil for power purposes in the United States. They find that last year 160 000 000 barrels of fuel oil were used and that 40,000,000 barrels, or one-fourth of the entire amount was wasted and might have been saved by more intelligent operation of plants and proper firing. This represents a useless expenditure of $140,000,000 a year, or enough money to pay some of the country's important war bills, the fuel oil selling at about $3.50 a barrel. The experts also say that this wastage is doubly criminal at this time because of the urgent need of fuel oil for the ships of the Navy and for other essential war purposes. Further they declare that the 40,000,000 barrels of fuel oil lost each year is the equivalent of 10,000,000 tons of coal.

With such a situation confronting the country, both the Bureau of Mines and the Fuel Administration have sent into those parts of the country where fuel oil is extensively used a number of engineers who have been visiting the plants and endeavoring to demonstrate to the men where losses occur and showing how they may be stopped. As one result of the invesigation a handbook for boiler-plant and locomotive engineers in the efficient use of oil fuel has been issued by the Bureau of Mines giving instructions to all those who have oil burning plants. Van H. Manning, Director of the Bureau of Mines, has ordered that a copy of these instructions be forwarded to all known plants using fuel oil.

"I have always been aware that the United

States, probably through her great richness of resources, is one of the most wasteful of nations, but it has taken the emergencies of the war to disclose with startling directness the colossal wastes of war-winning supplies that are still going on," said Director Manning. "It is a new chapter in national profligacy to learn that in its use we are wantonly destroying one-fourth of our supply of fuel oil, to the extent of 40 000 000 barrels a year, while our oil operators are directing every available energy and millions of dollars toward inducing the earth to give up more and more of the precious petroleum, the most perfect of existing fuels.

"It calls for something more than criticism from a Federal official when we realize that in this greatest of world's crises, with the future of the people in jeopardy, the very fuel which is greatly needed for our American Navy to drive it on to final victory, is being dissipated here in this country to such an alarming degree. It calls for immediate and drastic action, and with the cooperation of the Fuel Administration we propose to see that the waste is stopped."

FREE USE OF NATURAL GAS TO BE RESTRICTED CLOSELY

The Fuel Administration, through it Bureau of Oil Conservation, has sent letters to all natural gas companies in West Virginia, Ohio, Pennsylvania, Kansas, Kentucky, New York, Oklahoma, Arkansas, Louisiana and California, requesting that free consumers be limited to 200,000 cubic feet of natural gas per annum, and calling for a report of results accomplished on December 1.

By free consumers is meant those users of natural gas who are relieved of payment because they have wells or pipe lines on their property. Up to this time the average consumption of free users in West Virginia alone has been 480,000 cubic feet per consumer per year. This is regarded by the Fuel Administration as causing a waste of at least 350,000 cubic feet per consumer per year.

In addition to limiting free consumers, the Fuel Administration further requests that the use of all open or flambeaux lights be stopped, and that all other wasteful practices by consumers be eliminated. The natural gas companies are informed that to properly carry out these requests it will be necessary to place meters on all free consumers' service lines.

The authority to make and enforce these requests is invested in the Fuel Administration through the Presidential proclamation of September 16 and by rules and regulations promulgated by Fuel Administrator Garfield on September 24 governing licensees engaged in the business of importing, manufacturing, distributing and transporting crude oil, fuel oil, gas oil, kerosene, gasoline and natural gas.

In many instances boom towns in the gas fields have held out the inducement of supplying free gas, or supplying it at ridiculously low prices to industries that would locate there. This is especially true of West Virginia, and has resulted in depriving many domestic consumers of an adequate supply of fuel for household use. It is estimated that there are 4,400 free consumers in West Virginia alone, and that the amount of waste from this source is 1,540,000,000 cubic feet per annum.

Munitions Patent Board Named

For the purpose of coordinating the policies of the War Department and the Navy Department in patent matters, the Secretary of War and the Secretary of the Navy have established the Munitions Patent Board. The membership of this board consists of Thomas Ewing, who has been jointly selected by the Secretary of War and the Secretary of the Navy; Max Thelen, the representative of the War Department, and Pickens Neagle, representing the Navy Department.

The Munitions Patent Board has been formed to consider clauses in contracts of the respective departments dealing with patents, questions as to the validity or infringement of patents and the patentability of inventions, questions as to the amount of compensation to be paid for patents or for the use of patents, and all other miscellaneous questions as to patents which may arise in the two departments interested. The board is empowered to recommend, from time to time, to the Secretary of War and the Secretary of the Navy suitable action to be taken or policies to be adopted in regard to all patent matters which are brought before it for consideration. The action of the board in matters which come before it, in so far as they apply to the War Department, is subject to the final approval of the Secretary of War, and in matters for the Navy is subject to the final approval of the Secretary of the Navy.

C. E. PERSONS TO HANDLE PUBLICITY

Fuel Administrator H. A. Garfield has appointed C. E. Persons of San Francisco, Director of Education of the Fuel Administration.

Mr. Persons has been connected with the Western Division of the Associated Press for seven years and for the last three years has been news editor of that division.

At the request of Dr. Garfield, the Associated Press has released Mr. Persons for this work.

PRICES OF ANTHRACITE IN VARIOUS CITIES

In the October Monthly Labor Review, which will soon be published by the Bureau of Labor Statistics of the Department of Labor, is given a table showing by cities the average retail prices of coal on January 15 and July 15 of each year, 1913 to 1918. Prices are shown for 50 cities from which prices are secured by this bureau for food. The coal dealers in each city were asked to quote prices on the kinds of coal usually sold for household use. The table shows prices of Pennsylvania anthracite white ash coal, both in stove size and in chestnut size, and an average price for each city of the several kinds of bituminous coal.

The following table gives the prices for a few of the cities which will be shown in the Review. All prices are for a ton of 2,000 pounds, unless otherwise stated. Prices for Seattle are those for Zone A, which is the cheapest zone of distribution. Prices in the other zones range from 25 cents to $1.50 per ton additional.

	an., 1913.	Jan., 1918.	July, 1913.	July, 1918.
Baltimore (2,240 lbs.)—				
Pa. anthracite stove	$7.70	$9.60	$7.24	$10.45
Pa. anthracite chestnut	7.93	9.75	7.49	10.55
Boston—				
Pa. anthracite stove	8.25	9.85	7.50	10.25
Pa. anthracite chestnut	8.25	9.85	7.75	10.25
Chicago—				
Pa. anthracite stove	8.00	10.35	7.80	10.90
Pa. anthracite chestnut	8.25	10.39	8.05	10.98
bituminous	4.97	6.67	4.65	6.48
Cincinnati—				
Pa. anthracite stove	8.25	9.50	7.50	11.66
Pa. anthracite chestnut	8.75	9.50	7.75	— —
bituminous	3.50	6.10	3.38	6.73
Detroit—				
Pa. anthracite stove	8.00	9.88	7.45	10.15
Pa. anthracite chestnut	8.25	10.08	7.65	10.52
bituminous	5.20	8.27	5.20	8.18
New York—				
Pa. anthracite stove	7.07	9.06	6.66	9.30
Pa. anthracite chestnut	7.14	9.08	6.80	9.28
Philadelphia (2,240 lbs.)—				
Pa. anthracite stove	7.16	9.59	6.89	9.81
Pa. anthracite chestnut	7.38	9.68	7.14	9.89
St. Louis—				
Pa. anthracite stove	8.44	10.43	7.74	11.00
Pa. anthracite chestnut	8.68	10.53	7.99	11.25
bituminous	3.36	5.44	3.04	5.89
San Francisco—				
Bituminous	12.00	13.87	12.00	14.08
Seattle (Zone A)—				
Bituminous	7.13	7.87	7.20	9.13
Washington (2,240 lbs.)—				
Pa. anthracite stove	7.50	10.10	7.38	9.96
Pa. anthracite chestnut	7.65	10.19	7.53	10.06

Modifies Ruling

The Price Fixing Committee of the War Industries Board has modified its ruling of September 26, so as to read, "The maximum prices for acid below 92 per cent H_2SO_4 shall be figured on the price for 60° Be. Sulphuric acid, and above 92 per cent H_2SO_4 on the basis of 66 Be. Sulphuric Acid.

Influenza Cuts Anthracite Production

Anthracite production for the week ended October 19 fell off in spite of the efforts of the Fuel Administration and the patriotic spirit of the miners and operators to increase it. The decrease, which was 191,074 tons from that of the week ended October 12, showed a total output of anthracite from the mines of 1,371,114 tons.

MANNING ADVISES CONGRESS TO PASS THE LEASING BILL

In connection with the resolution passed by the Senate asking whether the enactment of S. 2,812 would help the oil situation, the following was submitted by Van. H. Manning:

Prior to September 27, 1909, public lands in the United States and the Territory tof Alaska were subject to exploration, location, and purchase under the placer mining laws of the United States (secs. 2,329-2,331, R. S.; Acts of February 11, 1897, 29 Stat., 526, and February 12, 1903, 32 Stat., 825). Under these laws any citizen of the United States or person who had declared his intention to become such could go upon the public lands and explore for oil, and upon discovery apply for and receive patent as prescribed in the mining laws. September 27, 1909, the President of the United States withdrew from exploration, location, and entry large areas of public lands known or believed to contain valuable deposits of petroleum for the primary purpose of withholding same until Congress could consider legislation designed to secure the exploration for and development of deposits of oil and gas under a leasing law. Similar withdrawals had been made from time to time until at the present there are withdrawn from all exploration, location, and entry 6,524,834 acres of land either known to contain oil and gas or believed to possess possibilities thereof. This acreage is not all public lands, as considerable areas within the exterior limits of withdrawals were patented under the various public-land laws prior to dates of withdrawal. There are also withdrawn 132,024 acres of land known to contain valuable deposits of oil shale. The withdrawals cover lands in the States of Arizona, California, Colorado, Louisiana, Montana, North Dakota, Utah, and Wyoming. In addition, all lands containing deposits of oil in the Territory of Alaska are likewise withdrawn.

Most of the lands so withdrawn are free from claims and would, if Senate bill 2,812 or other legislation providing for their disposition were enacted into law, be subject to exploration and development in accordance with its provisions. A minor portion of the area, comprising valuable proven oil territory, was, however, covered by locations made under the mining law prior to withdrawal and the claims so asserted have not been disposed of, but are pending in the land department or in the courts. Most of these claims have upon them one or more producing oil wells, but increased production through the drilling of additional wells is practically halted by the withdrawal. The so-called relief provisions of Senate bill 2,812 are designed to adjust these controversies and secure the development of the lands.

In my opinion, the enactment of a law providing for the development of the oil lands of the United States would (1) open to exploration and development the vast areas of public land in the United States and Alaska now absolutely withdrawn from exploration and development, thereby resulting in the discovery and development of new oil fields and deposits, thus adding to the oil and gas supply of the United States and Alaska; (2) permit of the leasing of lands now withdrawn and actually proven to contain valuable deposits of oil and gas by the existing wells upon the lands or upon adjoining tracts (these fields are principally located in California, Wyoming, Montana, and Louisiana); and (3) permit of the further development of existing claims within withdrawn areas which have upon them one or more producing oil wells. These areas are already equipped with pipe lines and facilities for developing and transporting oil, and many of the interested individuals and corporations have equipment, in the way of casing and other supplies, which could be immediately utilized in the drilling of additional wells.

The most immediate results would be obtained from the lands mentioned in the above items 2 and 3, namely, proven lands which have not been developed by oil wells and lands within withdrawals, but which have within their limits one or more producing oil wells at the present time.

During the past few years I have made a number of reports and suggestions to the Public Land Committees of Congress with respect to legislation of the character involved, and bills have passed one of the bodies of Congress, but none has received concurrent approval. I do not feel that I should at this time specifically indorse any particular measure, and consequently this report is designed to explain, briefly, why I believe the enactment of legislation for the development of the oil resources of the public domain would materially aid in obtaining an increased fuel supply in the immediate future. It must be obvious to any one familiar with the situation that the existing withdrawals and controversies prevent the bringing of the oil from underground and into use, and the conditions described in the report of the United States Fuel Administrator in his report to the Senate, dated September 10, 1918, Document 277, and in my report responding to Senate resolution 301, which gave in some detail the present situation, with special reference to gasoline, emphasize the importance and desirability of the enactment of legislation which will, while properly preserving the public interest, stimulate and encourage the production of oil from our public lands.

I am of the opinion, therefore, that, viewed from any angle, the passage of a leasing bill is desirable, and conditions possibly will arise that will make it distinctly a war measure.

EPIDEMIC REFLECTED IN COAL OUTPUT FOR WEEK OF OCTOBER 12

The spread of Spanish influenza is beginning to cut into coal production although the output of bituminous coal during the week ended October 12 showed only a slight decrease, compared with the week preceding. The estimate furnished to the United States Fuel Administration by the Geological Survey is 12,321,000 net tons (including lignite and coal made into coke). This was an increase over the corresponding week of last year of 1,317,000 net tons, or 12 per cent. The decrease from the week before was 273,000 net tons, or 2.2 per cent, which is ascribed chiefly to interruptions of work in various districts where the epidemic was started.

The average production per working day was estimated at 2,053,000 net tons, as compared with 2,099,000 net tons during the week ended October 5 and 1,834,000 net tons during the week ended October 12, 1917. The average daily production now calculated as necessary during the remaining 24 weeks of the coal year from October 12, 1918, to March 31, 1919, is estimated at 2,034,038 net tons. It will be seen therefore that in the face of increasing handicap, the miners during the week ended October 12, exceeded the daily production estimated to be required for the remainder of the coal year.

The bituminous production during September is estimated at 51,687,031 net tons, which exceeds the production of September, 1917, by 6,579,073 net tons, or 14.6 per cent. The September production was limited by loss of time on Labor Day, and on Registration Day; also by the short month. For these reasons the production for September was approximately 4,000,000 net tons less than the production during either July or August and fell slightly below the production of June, but exceeds all records prior to June, 1918.

During the first six months of the coal year it is estimated, the production of bituminous coal was 312,282,414 net tons, as against 274,537,172 net tons during the same period of 1917. This is an increase of 37,745,242 net tons, or 13.7 per cent. The requirements during these first six months of the coal year, however, exceeded the production during these months of last year by 49,448,828 net tons, so that even with the large increase, the production during the first half of the present coal year was 11,703,586 net tons, or 3.7 per cent below the estimated requirements.

The production for the first nine months of the calendar year 1918 is estimated at 447,905,672 net tons, an increase over the same period of 1917 of 36,179,783 net tons, or 8.7 per cent. This enormous increase over last year was effected chiefly during the months of July, August and September in comparison with the same three months of 1917, the increase during these three months amounting to 24,234,681 net tons, or 17.4 per cent. This was more than double the improvement recorded during the first six months of the calendar year.

The production of anthracite during the week ended October 12, is estimated at 1,955,000 net tons, a decrease of 4.7 per cent compared with the week ended October 5. The total production of anthracite for the coal year to date now amount to 55,658,000 net tons, compared with 54,683,000 net tons during the same period of 1917, an increase of 1.8 per cent.

During the week ended October 5 the total loss by all causes from 100 per cent production was 14.8 per cent, of which car shortage comprised 5.5 per cent, labor shorting 4.9 per cent, and mine disability 3.1 per cent; all other causes 1.3 per cent.

"THE MORE COAL YOU PRODUCE, THE SOONER WE WILL HAVE PEACE"

General John J. Pershing, from Headquarters of the First American Army in France, cabled an urgent message to United States Fuel Administrator Harry A. Garfield, in which he said: "The more coal you produce the sooner we shall have peace."

The text of the cablegram was wired immediately to the mining centers throughout the country, backed by an urgent warning from the Fuel Administration to pay no attention to unfounded rumors of peace. The Fuel Administration, in its messages, pledged itself that authentic news of peace would reach all concerned through reliable sources when the proper time came. Meanwhile all were urged to be aware of rumors. The text of the cablegram follows:

"Let there be no shortage of coal. Lack of coal means limiting our war industries, railroads and shipping are slowed down, and the Army cannot be provided with means to deliver the telling blows needed to end the war. Without coal we shall be without guns and ammunition to use against the enemy. The man in the mine helps the man on the firing line.

"The more coal you produce the sooner we shall have peace. Every soldier of the American Expeditionary Forces expects to be backed up by the miners of America just as labor in every branch of industry at home has stood behind us. We soldiers know that we can depend upon you to do your part as we are doing ours."

Confidence is expressed that General Pershing's appeal will not only check any decrease arising from this information but will stimulate tremendously the workers.

NEW ENGLAND'S WINTER COAL SUPPLY PRACTICALLY ASSURED

Continuous operation of the war industries of New England during the approaching winter is assured unless an unforeseen catastrophe to the mines, the railroads, or the coastwise shipping, during November interrupts the production of coal and its transportation to that section in sufficient quantities to supply current requirements. Unremitting vigilance in the conservation of coal, however, is and will continue to be absolutely necessary. If this be observed not even a repetition of the unprecedented severity of last winter's weather will prevent the furnaces of New England from operating at full blast from the present time until the return of moderate weather next spring.

The accumulation by New England during the past summer of sufficient coal to supply its minimum requirements during the months of December, January and February, has been made possible by effective cooperation between the miners, the United States Fuel Administration, the United States Railroad Administration, and the United States Shipping Board.

The subordination by the Fuel Administration of the winter fuel requirements of other industrial centers to those of New England is not and must not be construed as an indication that the industries of the latter section are considered of greater importance than those of any other locality. Transportation difficulties alone have controlled the policy of the Fuel Administration in providing the factories of New England with sufficient coal to insure them against a repetition of the conditions of last winter.

It is common knowledge that the railroad facilities of New England are extremely limited and are wholly inadequate to meet the enormous demand that has been made upon them since the United States became a belligerent. It is known also that this fact necessitates the transportation by water of approximately 66 per cent of the bituminous coal consumed in that territory.

Approximately seventy-five per cent of the war industries of the United States are located east of the Allegheny Mountains and north of the Potomac River. A large proportion of that percentage is situated in New England. Frozen coal in the cars, snowbound tracks, and an intense cold which not only blocked the northern Atlantic ports of the nation, but froze ships to their docks as far south as Newport News, threatened a paralysis of the war industries of New England which was only narrowly averted. The imperative necessity for preventing a recurrence of such a situation irresistibly impelled the Fuel Administration to adopt the course it has followed in giving preference to the requirements of that locality.

Now that the winter needs of New England have been assurred it is the intention of the Fuel Administration, in cooperation with the Railroad Administration, to spare no effort similarly to supply the requirements of other localities in the order of their several transportation difficulties.

QUOTA SYSTEM PUT INTO EFFECT IN WESTMORELAND COUNTY

Complete acceptance and allotment of individual mine production quotas have been completed in the Westmoreland county coal district of Pennsylvania, according to reports made by J. S. Amend, production manager, to James B. Neale, director of production, United States Fuel Administration. Westmoreland county thus becomes the first district in the country to put into detailed effect the quota system as recently set forth by H. A. Garfield, United States Fuel Administrator.

Coincident with this comes the news that the Westmoreland district, which produces the highly essential gas coal required by steel and munition plants, has gone over the top with a new production record of 401,000 tons for the week ended October 12, or 13,000 tons in excess of the previous high mark. On the basis of 80 pounds of coal required for one 3-inch shell, the extra 13,000 tons means that Westmoreland county last week presented Pershing with the equivalent of 325,000 such shells.

Another production record was made last week by the miners of Indiana, as reported by W. J. Freeman, production manager. Mines there have moved up their speed another notch and broke their mark for the third time in four weeks by turning out 692,228 tons, an increase of 3,630 tons over the previous high record.

Big Individual Production in Illinois

Evidence of the high production rate which is being hit by coal mines throughout the country is given in figures forwarded by F. C. Honnold, production manager for Illinois, to James B. Neale, director of production, United States Fuel Administration, covering a record made at the Orient No. 1 mine of the Chicago, Wilmington and Franklin Coal Company, Orient, Ill. The record gives details of the week of October 7 to October 12, inclusive, the week's output being 32,514 tons, a daily average of 5,419 tons. The biggest day was Thursday, October 10, when 6,008 tons were loaded for shipment. This is the record production for any mine in the whole Indiana-Illinois territory, and it was made by 738 men. The length of the hoist in Orient No. 1 shaft is about 600 feet, and to raise 6,008 tons it was necessary to make 1,452 hoists, or more than three per minute.

NEALE ADDRESSES 10,000 MINING MEN AT GLEN JEAN MEETING

At a meeting of ten thousand miners, foremen, superintendents, officials and operators of the New River field at Glen Jean, W. Va., James B. Neale, director of production of the United States Fuel Administration, made the following remarks in the interest of increased coal production:

"At this time we Americans have a double task, first, to contribute the last atom of our strength towards winning the war, and thus making the world safe for democracy, and second, to show the world that democracy, as exemplified by us, is worthy of being made safe even at the frightful price now being paid. Labor can contribute much towards performing this double task. Great is its man power from which to provide soldiers, and great is its ability to transport them and to provide amply for them 'over there' and for those at home. Thus can it play a splendid part in making the world safe for democracy.

"Labor is a typical group of Americans. Its standards are just, but only as high as the standards of the average worker. The moral plane on which it stands is probably indicative of the moral plane of the American people. Labor now has a wonderful opportunity to prove to the world that its moral plane is high, proving at the same time that democracy more than autocracy has created individuals who are ever striving for higher standards.

Autocracy holds that a treaty—another name for a contract—is a mere "scrap of paper." You men of the mines must hold a contract sacred and must adhere strictly, not only to the letter, but also to the spirit of it. You work under customs or agreements, either verbal or written, calling for a certain number of hours to be spent each day working at the working places, unless prevented by unavoidable causes. The spirit demands a strict interpretation of the words "unavoidable causes." The mine management must do its best to afford good working conditions, but the mine workers must not seize upon each inconvenience and consider it an "unavoidable cause" preventing him from performing a full day's work. He must do his best in the face of handicaps. A part of the day's output is better by far than no output at all.

"It is the operator's moral duty to provide to the miner the opportunity to do a day's work each day, and it is the moral duty of the miner to make the best of that opportunity. It is the moral duty of both operator and miner to be helpful to each other and neither one can justify a relaxation of effort because of what seems to him a relaxation of effort on the part of the other. Two wrongs never made a right, never proved a high moral standard for the interested parties. Charges and countercharges, incriminations never won a war.

"Autocracy holds that might makes right, that the end justifies the means. Labor must have a fixed, unchangeable belief that right alone makes might and must show this in a tangible way by throwing its full weight in the Allies' cause. Labor must be determined to rely for its progress upon maintaining principles which are just and right. Its strength today proves that it has followed sound principles. I prophesy for it ever increasing strength if it will see to it that each stepping stone used in its march forward in the coming years is laid on the foundation of right."

The coal from the New River field is practically all devoted to the cause of the Allies for bunkering ships and for making chemicals and explosives in the by-product coking plants of the country. The meeting was also addressed by P. B. Noyes, Director of Conservation of the United States Fuel Administration; Governor John J. Cornwell, Trooper Scott, Sergeant Brown and Lieutenant Nelidow, of the speakers' corps of the Fuel Administration.

Pit-Car Loader

Bulletin No. 246, featuring the Jeffrey Pit-Car Loader, is now ready for distribution.

As the demand for coal grows stronger, the man power available for its production will doubtless grow less, and every possible means must be employed to assist the miner if the present production is to be maintained or exceeded.

The Jeffrey Pit-Car Loader is a light, easily portable loading conveyor which performs the most arduous work the loader has to do, resulting in a considerable saving of muscular energy.

By use of these conveyors, the men can double the number of cars loaded per shift and each place loaded out in half the time required by the use of shovels only; therefore, each place can be cut and loaded out twice as often, and a greater output obtained with the present force of men, or the same output obtained with less men.

The savings in cost of coal, due to obtaining the output from a comparatively small territory in a shorter time, is effected by the saving in track and trolley material, upkeep of entries, ventilation and pumping; less number of day laborers, such as trackmen, timbermen and sub-foremen, which would be required; saving in keeping each mining machine in a small territory, as there would be less traveling done; gathering of coal would be simplified and expense reduced; timbering costs will be reduced since the places advance more rapidly and the falls from the roof are less frequent.

GASOLINELESS SUNDAY REQUEST WITHDRAWN—PUBLIC PRAISED

The Fuel Administration, on October 17, withdrew its request for "Gasolineless Sundays". If at the end of two weeks stocks are found to be dangerously low, it may be necessary to renew the request, it was stated. A priority order, giving precedence at refineries to shipments for overseas, is to be promulgated shortly.

Loyal public response to the appeal for gasolineless Sundays east of the Mississippi River was said by Fuel Administration officials to have saved at least 1,000,000 barrels and to have made it possible to give to the men at the front the supplies required in the prosecution of the war.

The stocks of gasoline east of California, it was stated, have not materially increased or decreased. As of September 16, the total stocks of gasoline were 2,949,640 barrels of motor gasoline and 340,883 barrels of aviation gasoline; as of October 14, the stocks are 3,134,731 barrels of motor gasoline and 166,369 barrels of aviation gasoline. This represents the entire reserve and is not all available for export as it is stored in the territory as far west as Wyoming and includes all interior storage in various oil producing localities.

The quantity of motor gasoline has increased 184 000 barrels, with a decrease in aviation gasoline of approximately the same amount. In other words, the condition has been held stationary.

The peak load of domestic consumption is passing. It is hoped that overseas shipments will not be quite so heavy; and a priority rule and regulation is about to be promulgated that will give priority at refineries on shipments, and if any shortage does arise it will be domestic.

The Fuel Administration is now considering the question of conservation with a veiw of determining what further or other measure of conservation, if any, will be needed.

Campaign to Save Natural Gas

School children in the natural gas producing territory of the United States will be taught how they can assist in the conservation of millions of dollars worth of natural gas through a course of instruction established by the United States Fuel Administration.

The course shows that $36,000,000 worth of gas can be saved annually by proper adjustment of cooking appliances used by more than 2,000,000 domestic consumers, and that through a saving of 1,000 feet per month by each domestic consumer there will be effected a saving of 2,000,000,000 feet per month. This, it is pointed out, will release sufficient coal to make 2,000,000 3-inch shells and enough coal to send one 15,000-ton troopship overseas every day in the month.

The course will be established first in Ohio and Kentucky. Later it will be offered in all other states in the gas producing territory. School teachers will be supplied with text-books and suggestions for conducting the course, which is to be installed as a part of the curriculum through the cooperation of the state boards of education. The course will include elementary instruction as to the formation and production of natural gas and the application of proper methods for its most economical use.

Prize Banquet for Miners

Greensburg, Pa., October 25—The Westmoreland county mine which makes the greatest average increase in its coal production in November, as compared with the October output, will receive a big Christmas dinner for its workers. That was the announcement today of James S. Amend, district production manager, who has already aroused a spirit of good-natured rivalry among the 200 mining camps of the district. This rivalry promises to become more intense in the November drive to win the Christmas banquet.

Under the plan announced by the district production manager, the prize dinner will go to the mine making the greatest percentage of increase in its tonnage. Competition will be limited to mines which produce a minimum of 10 000 tons a month.

It is probable that the mine winning the dinner will also land the service flag for one month. This flag is to be awarded each month to the mine making the greatest actual increase in its output. A mine which wins and holds the flag during a series of months, will be awarded permanent possession of the honor banner at the close of the coal production campaign. The dinner to the men is to be given in recognition of the personal efforts of the mine workers.

Miners Get Industrial Service Flag

Greensburg, Pa., October 28.—Forty-eight men, or 38.3 per cent of the working organization of the New Alexandria Coke Company, at Andrico, won honor distinctions for full time service during July, August and September. Each man worked 78 days during the three months and individual tonnage of the 48 men average 17 tons a day.

A big celebration will be held at the New Alexandria works this week and personal letters of congratulation and appreciation will be presented the honor roll workers. These letters have been addressed to the men by J. B. Nale, Production Manager of the United States Fuel Administration. James S. Amend, district production manager, will present the letters and will personally commend each worker for his loyal and patriotic service.

COAL COMMISSION TO STUDY CONDITIONS IN EUROPE

Appointment of a special commission of the United States Fuel Administration to inquire into conditions and government regulations affecting the coal industry in foreign countries has been announced by Fuel Administrator Harry A. Garfield.

The commission will consist of Walter E. Hope, who joined the Fuel Administration on September 19, 1917, as director of the Bureau of State Organizations; S. Brinckerhoff Thorne of New York, coal expert, and James H. Allport, one of the engineers to the Fuel Administration. They will sail soon for Europe.

Mr. Hope went to the Fuel Administration from New York, where he is a member of the law firm of Maston & Nichols. He is a graduate of the New York Law School, and of Princeton, where he was editor of the Daily Princetonian.

Mr. Thorne is a graduate of Yale, '96 and is president of the Temple Coal Company and of Thorne, Neal & Company, coal distributors. At college he played three years on the varsity football and was captain of the team the last year. Since then his business has been coal.

Mr. Allport is a consulting engineer of national reputation. Prior to his connection with the Fuel Administration he was connected with many companies. He attended the University of Pennsylvania, taking special courses, and lives at Philipsburg, Center county, Pa.

Coal Saving by "Skip Stop" System

Six months operation under the "Skip-Stop" system, adopted by the street railroads of the country as a coal conservation measure, shows a saving in coal, or its power, equivalent, in 24 States, of 687,122 tons annually, according to the latest figures announced by the U. S. Fuel Administration. Reports from the other States are not yet available.

Massachusetts reported the greatest saving, of 191,000 tons; Pennsylvania comes next, with 169,000 tons; Missouri was third, with 52,422; New York, 50,000; New Jersey, 30,000; Illinois, 25,000; Ohio, 23,000, and Michigan, 22,000. Other States, showing a saving of 10,000 tons or more, are: Tennessee, 18,000; Connecticut, 15,000; California, 11,000; Minnesota and Wisconsin, 10,000.

While complete reports from the street railroads of the entire country are lacking, the "Skip Stop" method of operation has, it is estimated by the Fuel Administration, effected a saving from old methods of about 10 per cent in power and consequently in fuel necessary to produce that power.

FURTHER DEVELOPMENT OF CHROMITE IS DISCOURAGED

The chrome ore supply in the United States is sufficient, the situation is in hand, and additional investments for production are not necessary for the present, the War Industries Board announces.

Hugh W. Sanford, chief of the Ferro Alloys Section of the Chemicals Division of the board, authorizes this statement of the point of view in regard to the production of domestic chrome ore:

"Owing largely to the fact that consumption of chrome ore in the United States has been reduced by changes brought about by the war program, and, furthermore, on account of the large domestic production of ore that has taken place in the United States during the past year, in the opinion of the War Industries Board, the situation is well in hand and there is no necessity for the present of additional investments being made in the United States for the production of chrome ore."

PERSONALS

A. C. Emery having resigned as General Purchasing Agent in order to devote his entire time to the Edison International Corporation, William Dykeman has effective October 1, 1918, been promoted and will assume the duties of General Purchasing Agent for the Thomas A. Edison Industries.

James S. Douglas, lately returned to the States after spending several months in France in Red Cross work, was recently in Washington. Mr. Douglas leaves for France shortly, where he will resume the work he has undertaken.

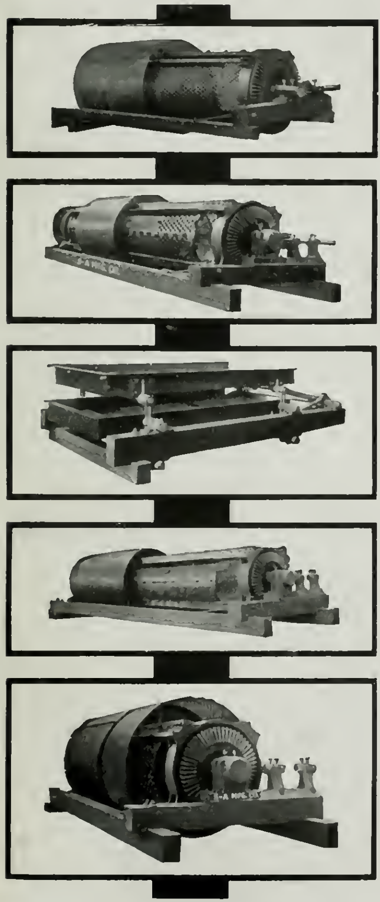
John C. Howard, of Salt Lake City, Utah, after spending several weeks in the East in the interest of the oil industry of his State, has returned home.

A. Scott Thompson, of Miami, Okla., who has done such splendid work as chairman of the Mine Taxation Committee of the American Mining Congress, and who has made the Washington office of that organization his headquarters for the past year, has returned to his home. Mr. Thompson will return to Washington for a short period during November.

J. M. Hoffman, of Kansas City, Mo., spent the greater part of October in Washington and the East.

John T. Burns, western secretary of the American Mining Congress, after an extended western trip, is again at the Washington headquarters.

SCREENS



"S-A" Screens are built in all shapes and sizes, and for *any* requirement.

The big revolving screens are designed for the most severe crushing plant and mine service. The screen is formed of cast iron ends, securely connected by heavy angle iron bars to which the screen plates are bolted. No spiders—no internal obstructions. The large driving gear at the discharge end is renewable, as is also the forged steel tire carrying the receiving end. Bearings are extra heavy, provided with compression grease cups and fitted with high-grade babbitt lining.

Reciprocating grizzlies, rocker screens, oscillating screens and other standard and special types of "S-A" screening machinery are built for every purpose. Every one built to give the *longest* continuous service under the *hardest* conditions!

Stephens-Adamson Mfg. Co. Aurora, Illinois

WALTER DOUGLAS

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THE MINING CONGRESS JOURNAL

Official Organ of the American Mining Congress

OUR TWENTY-FIRST ANNIVERSARY

The American Mining Congress has reached the age of maturity. It was organized in Denver, Colorado, during the year 1897. It is now twenty-one years old and ready to assume the responsibilities of manhood. Its promise of future service is justified by the accomplishments of the past. It has grown both in conservatism, power of accomplishment, influence and ability to serve. It is ready to assume and direct the larger functions as its equipment is increased.

With the twenty-first anniversary of The American Mining Congress has come a period of readjustment; a period when changes in all lines are essential for meeting changing conditions; a period in which every industry will require the closest working relation between its members and the Federal Government.

The American Mining Congress feels that a history filled with success and twenty-one years' experience are sufficient credentials to offer in asking greater support from that industry for the continuance of all important work. The mining industry has more than performed its patriotic duty in meeting war needs; in paying taxes large in comparison to those levied upon other industries; and in meeting the requirements for rare and unusual metals has made extensive investments necessary only to meet war needs. So, with the reconstruction period come grave questions affecting the mining industry in the amortization of normally excessive plant equipment and the disposal of surplus products; and with the reconstruction period have come many political changes requiring new educational campaigns concerning the wasting character and legislative requirements of the industry.

EFFICIENCY AND WAGES

It is estimated that the productive capacity of the United States is 10 per cent in excess of its consumption requirements. This means that 10 per cent of our total production must be sold in foreign markets in order to provide continuous employment for all our productive agencies. To insure this outlet for our surplus production requires that the prices at which the surplus can be sold must be such as will permit us to enter foreign markets in competition with foreign producers.

This may not require a low wage scale, but it does require maximum efficiency of productive forces. Wages may be high, but they must not be high as compared with the output. Approximately seventy per cent of production cost is represented by wages paid. The value of a wage depends not so much upon its amount as upon its purchasing power as applied to life necessities and luxuries. If the wages of capital and labor are reduced uniformly, no disadvantage can come to the wage earner and, to the point where the outlet for our surplus production is possible, such reduction will be a distinct and uniform advantage. Both labor and capital must understand that that price level which will permit a sale of our surplus production is altogether best for both.

THE GOLD SITUATION

With the ending of the war the processes will begin to operate which will to some extent relieve the pressure upon the gold mining industry. The gradual release of the man-power of the nation, the general reduction of prices, the ability of the machinery plants to furnish equipment for operation promptly and at a reasonable price, all will aid in making profitable gold mines which during war conditions could not operate. It is hardly to be expected, however, that these prices will be reduced to the prewar level. Even those levels immediately preceding the pre-war period were so high that gold mining was on the decrease and unless those same average price levels are to be reached again, there can be no substantial hope for the production of gold on a normal basis.

It has been urged by the Mining Congress Journal that some special artificial stimulation should be given to the gold mining industry because of the fact that its product is restricted in value by governmental edict and during the present time its exportation to foreign markets has been under embargo. Arguments have been made against the proposal that a bounty should be paid by the Government upon all newly produced gold, that this would in effect disturb the standard of value, or, as it is more tersely put, would lengthen the yardstick of measurements. The Mining Congress Journal has urged that the Government could, without disturbing the standard, offer special inducements for gold production during the high price period. A very clever method of meeting this situation, in a way which could not possibly disturb the standard of gold value as a money medium and at the same time would permit the output of gold mines to receive a higher average price, is presented in an article elsewhere in this issue, by Mr. John Clausen, Vice President of the Crocker National Bank of San Francisco, California. Those of our readers who are interestd in the gold question should read this article.

STAND BY THE CONSTITUTION

Now that the war is over, the patriotic reasons which have stayed public criticism of the actions of public officials, have perhaps lost force, and hereafter the officials whose acts do not conform to the public view, may expect to have their shortcomings openly and fearlessly discussed. During the war times, there were ample reasons why the Executive should have unlimited power in order that the Nation might speak as one man with power so exercised as to be most effective to carry out the great task of Hun destruction.

This being accomplished, the next important step will be to return not perhaps to the times immediately preceding the breaking out of the war, but to the good old fashioned times when the Constitution of the United States was regarded as something more than a piece of paper to be set aside at will. The experience of the past gives complete support to the belief that any desired public act which does not conform to the principles laid down in the Constitution of the United States, is an act which is dangerous to the commonwealth. The perfect balance of power between State and Nation laid down in the Constitution, should not be disturbed except after the long and tedious process of constitutional amendment.

If the demand for a change in our governmental principles is strong enough to secure an amendment to the Constitution by the people themselves, it may well be that new principles thus adopted may represent the voice of the people as expressed after mature deliberation. Any more rapid changes of the fundamental principles upon which our Government is founded, are likely to be dangerous in themselves and particularly dangerous as a precedent for the justification of mob rule as against the real will of the people. The United States is a government of the people. As a safeguard to their interests, it was provided that there should be three coordinate branches of the Federal Government: the Executive, Legislative and the Judicial. Each of these departments was independent of the other within certain limits laid down by the Constitution. It will be dangerous to this country when encroachments of one department upon the prerogatives of another shall receive public sanction. It was the duty of Congress to enact laws; it was the duty of the Courts to construe those laws; it was the duty of the Executive to enforce those laws as enacted by Congress and construed by the Courts. Every tendency to desert these principles is always dangerous to the liberties of the people and particularly dangerous in these times of general unrest throughout the world. The experience of Mexico and the conditions in Russia furnish ample proof of the importance of standing firmly by the Constitution.

IDEALISTIC IMPERIALISM

In every classroom in every academic institution for generations, the proper study of economics has started with:

"The conservation of waste is the measure of civilization."

Academicians have accepted that without question, perhaps, because they knew no better.

In the same classic environs, the study of employment and unemployment—particularly the latter—has gone on side by side with the study of waste. The interdependence of repair of waste and employment has, evidently, escaped attention of these social economists.

Most of us who have had some practical experience of business appreciate that fully a fourth of the business of the world has been done on the results of avoidable waste. In like manner, a fixed proportion of the employment is accounted for in the same way. Still, the academicians would stop the waste and hope still to find employment for the whole mass of labor—including even the swarming population of Belgium.

Being an academician, our revered President has espoused both doctrines bodily and occupies the rather awkward position of having his two feet on two subjects which are moving in opposite directions, with physical consequences to himself which it is perfectly easy to foresee.

Perhaps this accounts for a recent pronouncement—date and audience given on application. The President was, if you recall, confronted, in the early stages of the war, with a rather serious coal problem. In November, 1917, a railroad man said to Mr. Hoover, the Food Administrator, that if the cross hauls on coal could be avoided, enough cars would be saved to carry all the coal which the country needed. Mr. Hoover mentioned the subject to the Railroad War Board. The Railroad War Board inducted the idea by subterfuge into the mind of Mr. Garleld. Mr. Garfield "sold" the President on the idea. Thus the zoning of American coal became a fact.

The President saw in this a movement in the conservation of waste which he had long espoused. Now that we are near the end of the war and now that reconstruction movements loom large, the President proposes to apply the same notion to the international situation.

He has said that the whole world is to be zoned, on a commercial basis; products are to be allowed to travel only in their natural transit zone. This will avoid international trade conflicts. In a word, the flag may travel as far as it darned pleases, but there are certain hurdles which trade will not be allowed to take in the attempt to follow Old Glory.

Further, the President has said that if a supply of material is found in one place only but is needed the world over, it shall become international property subject to international control.

It is easy to imagine that the world would grab avidly at this idea with respect to potash which is found in Germany mainly. We can also imagine that some difficulty might be encountered if it applied to ships which are owned principally by England and, today, the United States and Japan.

There is but one difficulty with this whole idea. We, on this side of the Atlantic, may dream on in that idealism, but the rest of the world is likely to leave us sitting in the shadow of our dreams. As, for example, England. It controls, we will all admit, the shipping of the world. It can dictate terms. What ships we have would not care for our soldiers in France. We are still at the mercy of England and will be for years. Yet today we want to sell coal in South America. We could do so if we had the ships.

But—and here is the rub—England will not give us ships because she insists upon selling that coal to South America herself.

What is more, England knows that South America must have coal. She is supplying it today on one proviso—that those who are thus signally favored shall sign a contract with England for their full requirements for five years after the war.

England, apparently, is not subscribing, in advance, to the zone idea of the President. If it did, it is hard to figure how the workers could be kept employed in those narrow trade zones which the Washington "experts" would figure out.

All of which leads to the conclusion that an academic theory is beautiful in a class room, but it seems a mighty small patch for a mighty big hole when you try to make it cover the industrial conditions of the whole world.

THE WYOMING OIL SITUATION

Chief Justice Marshall was credited with saying that there was but one thing in this world which the Lord did not know in advance, and that was, "what the verdict of a jury was going to be."

It is equally difficult to comprehend the logic of a Federal Government with a dire need for increasing oil production which is continually on the lookout to prevent the development of oil fields, wherever there is any hope that such development may prove successful. During the early summer months a great scarcity of gasoline was expected. Automobile users were limited in their consumption. An appeal was made to oil producers to hurry up production; that oil stocks of the country were lower than ever before in recent history, and that the demand for war purposes was increasing. A general appeal was made to increase production and to decrease consumption. The Wyoming Oil Field is a comparatively new development. Much "wildcatting" (sinking of wells in undeveloped regions) was in progress. No single well is a sufficient recompense for the risks involved of sinking wells in undeveloped territory. But one well in fifty produces oil. The wildcatter must have more than the first well discovered in order to recompense him for the enormous expense of drilling the fifty wells.

Back in the Roosevelt Administration an effort was begun to change the plan under which the western public lands had been theretofore administered. This was known as the conservation movement. It anticipated a retention in the Federal Government of the power resources of the West. A preliminary step was the withdrawal from location and entry of all lands suspected of containing oil or coal. During all of these years since, Congress has had under consideration the enactment of a leasing bill under which these lands could be operated under control of the Federal Government.

In January, 1918, the House Committee on Public Lands was still considering this bill. Searching for information in this behalf, the Honorable Scott Ferris, chairman of the House Public Lands Committee, submitted to Secretary of the Interior Lane, a question relating to the Wyoming Oil Lands. The question and answer follow:

Question: Has the Executive Branch of the Government in contemplation the making of any additional withdrawals due to the recent oil locations in Wyoming, and if so, what areas and to what extent?"

Answer: "The Executive Branch of the Government is not recommending additional withdrawals on account of the recent oil activities in Wyoming."

This assurance from the administration led to large expenditures in various districts of Wyoming in prospecting for oil. Thousands of wells were sunk at different points. At Lusk, Wyoming, there was a favorable result. At a depth of 3,700 feet, a 1,500 barrel oil well was brought in and immediately after this discovery and only a short time before the recent election, all of the oil lands which could be suspected of containing oil in the neighborhood of Lusk, Wyoming, were withdrawn from entry.

It must be remembered that under the present law pertaining to mining development, the discovery is essential to complete the location. This one well, having made a discovery of oil, has completed its location and will be entitled to receive a patent for that particular location. In surrounding territory hundreds of other wells have been driven, hundreds of thousands of dollars have been spent in sinking wells, none of which have as yet made that discovery which entitles them to a patent under the law. These other wildcatters may continue development and if an oil discovery is made, may perhaps, under the law, secure patent for the single location . It is conceded by all who know conditions that this reward is entirely inadequate to the risk taken and the money expended in the discovery of oil. Unless adjacent territory can be secured in which wells may be driven in territory where there is a real promise of discovery, capital cannot be induced to wildcat in undeveloped territory.

When an oil operator comes to Washington and asks for justice, he is immediately branded as a Standard Oil hireling and no serious attention is given to his appeal for justice.

If an Oil Leasing Bill were to be hoped for from this or any future Congress, there might be a time when development might be anticipated, but if the present condition is to continue, oil prospecting must cease. For many years the West protested against the enactment of a leasing bill and the creation of a different policy, as applied to its power resources, from that which has been applied to the East. After many years of protest, the West surrendered under protest, but still surrendered. Since that time the wrangle has been between various departments of the Federal Government, while Congress has meekly stood by and waited for instructions from the administration. It is natural to expect that the Department of the Interior, charged with the administration of the public lands of the West, might be expected to be consulted by Congress when legislation of this character is under consideration. But it has been a puzzle to know why the Navy Department and the Department of Justice should be permitted to dictate to Congress what legislation of this character shall be enacted. For more than a year now past these departments have been wrangling with each other, with the Interior Department "present but not voting" in an effort to come to some conclusion as to what action they would permit on the part of Congress. It is true that the Constitution of the United States has placed the responsibility for legislation upon the two houses of Congress subject to the veto power of the President. We are prepared to suspend criticism of a Congress which, in war time has, for war purposes, followed the dictation of the President, but we cannot reconcile our ideas of constitutional government in such a way as to justify the arrogance of the Navy Department and the Department of Justice, assuming to direct Congress, nor can we reconcile our estimate of the dignity of Congress and the responsibility of Congress with its abject surrender to these accidents of governmental control, who probably never would have been elected by the people for the responsibilities which they have assumed. If the people of the United States had intended that these men should be clothed with legislative authority, they would have been sent to Congress and would not have been obliged to seek political appointment through the aid of political bosses. We do not criticize these men who, through personal ability, have extended their power, but we do criticize a Congress which abdicates in favor of these interlopers in legislative affairs.

LABOR'S ULTIMATUM

In Mexico one general rule pertains in society, in business—everywhere: "Manana por la Manana." Tomorrow after tomorrow is sufficiently soon for almost all things.

Today in the United States, we are facing serious problems the solution of which mean business prosperity—employment of all productive forces with proper remuneration or business stagnation—idle capital and unemployed labor, according as they are worked out by labor and capital.

Labor leaders have expressed themselves as not in the least worried over the future. Nor have they been worried over war problems. There is a reason. They were well organized before the stress of military preparation came upon us. They are better organized now. While the producers of the basic wealth of the nation have been pondering quite incidentally upon what may happen when "the boys come home" these leaders have been planning a clever coup, most successfully worked out in the organization and financing of the Pan-American Labor Committee. The "preparedness" lessons of the war resulted in "preparedness plans" to prevent the importation of Mexican or Spanish speaking labor excepting under terms dictated by the American Federation of Labor.

At the Laredo Conference, Samuel Gompers, astute and inspired leader of the Federation, who recently carried a message of cheer from America to the laborites of England, gave expression to what may be considered the position of the labor organizations at this time, when in answer to the statement of William H. Barr, president of the National Founders Association, that a reduction of wage and longer working hours were essential elements in meeting the foreign market conditions of the future, he said:

> *"With the understanding of the responsibility that goes with my words, notice is given here and now that the American working people will not be forced back either by Barr, this association or all the bourbons in the United States."*
>
> "One word more—the American labor movement will cooperate with all other agencies to help in this reconstruction time. Our movement is not to destroy, but to construct. And all may just as well understand now as at any other time that the advantage which the workers of America and of the allied countries have gained and which we hope to extend to the people even of the conquered countries, are not going to be taken away from us. And we will resist in that attempt to the uttermost."

This places the issue unmistakably before the American people. The working out of reconstructions on the part of the Government and employers of labor will have the full support of Mr. Gompers' organization up to the point where changes must be considered in order that all things can move downward to a normal level. When Mr. Gompers' "dead line" is reached, the negotiations must end and something must happen. The law of supply and demand has no place in the program. Sacrifice must fall upon all other classes and cease with organized labor.

If Mr. Gompers wished that the American people should know, early, of the part which his organization is to take in the readjustment of things, he has taken the right moment and method. It is now up to the business men of the nation as never before to organize, not upon an aggressive or offensive basis but for the purpose of finding out what their requirements and limitations are, what elements of cost must be reduced and how, what business conditions will be required to maintain business upon a profitable basis.

If Mr. Gompers is shown to be right and the reorganized commercial program will allow the present wages to continue, still enabling the United States to meet foreign competition, then and only then can he expect to be allowed to stand fast in his position.

Mr. Gompers has been of great service to the nation in many periods of crisis.

He has accomplished invaluable service by giving notice of labor's attitude in advance of any public discussion of reconstruction.

Will the mining fraternity wait until tomorrow after tomorrow to consider the matter? Labor began its deliberations yesterday. It is not even worrying about tomorrow.

WAGES AND PRICES

The wealth of the United States is estimated at $250,000,000,000; its annual production, $50,000,000,000. Six per cent of its total wealth is $15,000,000,000, which is 30 per cent of its annual production. From these figures, speaking approximately, it may be assumed that 70 per cent of the cost of our total annual production is the cost of labor and 30 per cent is the cost of the capital which includes the natural resources as well as the machinery of production. Should price levels be reduced to 60 per cent of the present levels it would mean that the earning capacity of the United States would be reduced from $50,000,000,000 annually to $30,000,000,000 annually. If the reduction of labor and capital shall be uniform, it would mean that capital would earn 3.6 per cent or nine billions of the total earning power of the nation, while labor's wages would be reduced from thirty-five billions to twenty-one billions. If the sixty per cent level is the basis to which business must return in order to be normal, and in order that we may find market for our surplus goods in foreign markets, then labor must be brought to see that that price level is altogether the best for him as well as for the employer. Best for the wage earner because it insures continuous employment without reducing the purchasing power of his earning.

THE FUTURE OF GOLD MINING

Gold is the cheapest thing in the world today. This condition has been brought about by the rise in the price of all things of which gold is the value measure. The cost of gold producution is now more than sixty per cent greater than in the pre-war period. Gold is worth more today than ever in history notwithstanding the fact that its purchasing power is very much less. This seems to be a strange statement but analysis will prove it to be strictly true. The indebtedness of the world based upon gold is many times greater than ever before in the history of the world. The amount of gold available to pay those debts is less in proportion to their amount than ever before. These statements, if true, prove conclusively that gold is worth more than ever before, notwithstanding the fact that its purchasing power is less. Gold will buy only approximately seventy-five per cent. as much of labor's time and not more than fifty per cent. of the efficiency of labor that it did in the pre-war period. In other words, labor is able to draw its pay for performing a service fifty per cent. less than its usual performance, this not altogether because of unwillingness but because of a lack of discipline and executive direction. The closing of the war will halt the headlong increasing prices which accentuate this discrepancy and decrease the world waste which has been adding to the scarcity, but this will not alter or reduce the demand which will be made upon gold. The great necessity for gold will rapidly make itself manifest as the time approaches for payment of the world's bonded indebtedness. It is now the cheapest thing in the world and yet gold is the standard and world accepted measure of value. It is a strange situation and one which will not last. Gold will come back because the greater the burdens become the greater the rebound when those burdens are lifted. Gold will still be the measure of value. Your debt if payable in gold will take your property, all of it, unless you are able to exchange less than its whole for the amount of gold called for by your obligation. The world is in debt, woefully in debt. Its debts are increasing with startling rapidity. Property values are rising in proportion. When pay day comes, these conditions will reverse themselves. Reversal is inevitable. Gold will then come into its own. An owner of a gold mine will then operate under reversed conditions, then the cost of his operation will be less and the value of his output more. Now the costs are sixty per cent above normal, his output value fifty per cent. below normal. Wisdom and foresight ought to prevent both conditions but it will not. The effective intelligence of the nation is not equal to the occasion. Gold production is now being decreased with no benefit to other lines of business. Later all other lines of industry will suffer with corresponding benefit to the gold industry. This is the time gold mining companies should fortify themselves, protect their holdings and wait. Many companies will be unable to do this. Consequently, this is the time to buy gold mines—buy, and hold, and wait. Gold will again come into its own. There is nothing more sure.

A CURE FOR COAL TROUBLES

To put the coal industry into a safe position, three things must be taken out of it that were inserted by the war—politics, overcapitalization and overproduction.

Politics came without reason or justification. Overcapitalization came because the Government has not learned enough about business yet to appreciate the need for amortization. This seems strange after all our talk about watered stock. Still it is true. Overproduction is merely accentuated in coal and is an unavoidable result of the war needs and the prices which have prevailed for nearly two years.

Even if those things could be taken out of coal—it is a long, hard job—the nation cannot be served, in the broader sense, by coal until something is put in—protection against the pressure of the reserve coal land and encouragement of the extraction of by-products as part of the coal business.

The big problem is to find a way to hold the reserve coal land in *reserve*. This must be done without the intrusion of politics because the latter—if it is a cure—is worse than the disease. But if a scheme can be devised by which coal can be held in reserve, the diversifying of the coal business will come as the natural result of putting a sound commercial footing under the industry. To get this diversity, all that is needed is a period of assured profit for the business substantial enough to allow a certain amount of money to be accumulated by coal companies. With that money coal will expand its own activities into other and more profitable lines.

If this elaborate program is not possible as a result of a political bargain, then a sure way to a secure coal future is so to revise the basis for capital issues that those which are put out are sound and can be made good paper for the banks to handle through their merchandising departments. More promise is held out in the latter direction than in any other that has been suggested. Investigations into this subject lead to the belief that these issues can be so based they will be sound. So, we may look for proper coal development through the banks rather than through the political offices.

"PASSING THE BUCK"

The original War Minerals Bill was so worded as to create a dictatorship over the mining operations of the country. Opposition to this plan quickly developed, it being urged that until the mining industry should fail to meet the public war requirements, there was no valid reason why its operation should be interfered with by special governmental agencies. In those lines, where normal conditions did not make for production, *i. e.*, where the total cost of producing these minerals in foreign countries and transportation to our shores was much below the cost of home production, the domestic industry could not operate. Even to meet the war demand it was patent that those minerals could not be produced here because of the certainty that the closing of the war would terminate the demand at renumerative prices, except as Congress might create a protective tariff to enable the domestic industry to survive in competition with foreign competition.

So far as the ferro minerals were concerned, there was general public approval of the War Minerals Bill as it was changed to induce development and production. The House of Representatives quickly passed the original War Minerals Control Bill with some modification. No particular objection was raised to its objectionable features because of the opportunity thereafter available in the Senate for the correction of its manifest errors. The Senate Committee on Mines and Mining promptly took up an investigation of the merits of the bill, and after somewhat prolonged hearings, reported the bill to the Senate, which was in time duly adopted and later signed by the President.

The bill was intended to be a war measure. Its purpose was to make conditions under which the ferro mineral industry of this country could be made to meet the war demands of the country without loss to those who engaged in the enterprise. While the bill was under consideration by Congress, agencies of the Government appealed to the mining fraternity of the country to save the nation by producing chrome, manganese, pyrites, tungsten, and other rare minerals, urging that without a supply of these minerals the steel industry must fail, and that the steel industry's operation at full speed was absolutely essential to the proper prosecution of the war. Under these conditions and with full faith that the government which urged this production would deal fairly with the men who met this demand, several million dollars have been invested in these enterprises.

The War Minerals Bill was intended to meet these conditions and provide against loss to those who met the Government's critical need. It is a lamentable fact that the bill was not put into operation until after the close of the war, and until after the patriotic efforts of the ferro mineral producers had accomplished what the bill had intended to induce them to accomplish, viz., created an ample supply of these minerals of which there had been such a dire and dangerous shortage. The wording of the bill is such as to make it extremely doubtful whether it can technically apply to a situation in which there is a surplus of these materials. When the bill could have served to prevent the gross injustice which is now threatened to the ferro mineral producers, its operation was prevented by the influence of one man, who desired to add one more power to the already dangerous powers of his organization. When it was seen that the administration of the bill was almost impossible, the gentleman who had theretofore been so anxious for this power, quickly side-stepped the situation and consented to the administration of the bill by the Interior Department, where it should have been placed before the close of the war. As a result, Director Manning of the Bureau of Mines is charged with a responsibility which no human being could possibly execute in such a way as to save himself and his bureau from criticism and denunciation.

It seems fair to Director Manning, as well as to the mining public, that the real reason for the desperate situation in which the chrome, manganese, pyrites and tungsten producers of the country find themselves, shall be made public. This statement is made with no desire to criticize any person, but only that justice may be done and that the public shall not expect Mr. Manning to do that which is utterly impossible under the terms of the law under which he is obliged to act. THE MINING CONGRESS JOURNAL believes that this is a case for congressional action and that Congress should promptly take such steps as will permit the Government to do absolute justice to those who, for patriotic reasons and at the Government's request, have put them in a position which, without such justice, will force them into bankruptcy.

The success of the world war for justice will be of little avail unless our country can deal justly with her own citizens.

THE PRICE PROBLEM

The magnificent success of the Allied armies and the deep-seated belief that no matter what obstacles were to be met, that our triumphant armies would be equal to every occasion is a matter of unlimited satisfaction to every patriotic citizen.

Our entry into the war created no shock, but gradually we shouldered the burdens which the great waste of war necessarily and naturally entailed not only upon the peoples involved therein, but upon the world as a whole. It was anticipated that the closing of the war would bring more of shock to the industrial conditions of the country than its beginning. All of the great industrial army engaged in the manufacturing of war materials and munitions will be thrown back to ordinary industrial activity.

It might seem that this would bring great relief to industries which have been unable to meet requirements upon them because of a direct lack of man power and an indirect lack of man power manifesting itself in the scarcity of the material for manufacturing purposes. It would seem that all of the problems which will be presented should be solved by intelligent foresight and a complete organization, rather than through a disorganization of business. The crucial difficulty will be in the readjustment of prices. Is the readjustment of prices a necessity? Why cannot the country go on paying 50 per cent more for labor than in the pre-war period, labor itself paying 50 per cent more for the supplies which it consumes, and business charging its regular percentage of profit upon high prices, as it formerly did on lower prices?

The develpoment of all but war enterprises has been at a standstill. Railroad equipment and construction will call for enormous outlay of material and labor; every branch of mining, with the possible exception of coal, must meet a largely increased demand for material. Not only must the industrial development of this country be revived, but devastated Europe will for a long time necessarily look to us for material and supplies. These demands should keep busy every factory and make employment for every man and woman who desire to work for wages. Why, then, should a readjustment of prices be required at all, and if required, why cannot the change be made gradually and without disturbance of industrial conditions.

All values and prices must rest first, upon the cost of raw material, and second, upon the cost of the labor which transforms that raw material into merchantable goods. If the price of labor is maintained at the present high standard, it would seem that the value of the goods upon the merchant's shelves could be maintained. If the people are able to buy these goods, and thus relieve manufacturers of stock in the creation of which labor is employed, well and good, but if the people cannot and do not buy these goods at prices that will justify reproduction, there must be a stoppage of labor employment which would quickly break prices in all lines. The great problems which these conditions will present call for the best thought of the American people, and it is well indeed that provision is being considered by the United States Senate for investigations into these fields of inquiry, through which solutions may be developed to enable us to resume old time conditions gradually and without business disturbance.

THE WAR MINERALS ACT

The sudden termination of the war found much work in progress, the profitable completion of which depended upon a continuance of the war and the continuous war demand for the materials which were proposed to be created. In most lines investors were properly safeguarded by contracts which were authorized by congressional acts.

either directly authorizing the contracts or by broad authority given to the President to care for such situations. This statement is practically true as it relates to the production of all materials for war purposes, except certain minerals, for which the War Minerals Act was intended to provide a remedy. In anticipation that authority would be granted, agents of the Government through the War Industries Board and the Bureau of Mines issued an urgent appeal to the public to furnish adequate quantities of chrome, manganese, pyrites, tungsten and other rare metals which were absolutely essential in the making of war munitions and of which the supply had been cut off by taking for foreign service the vessels, theretofore engaged in importing these ores from Brazil, New Caledonia and Spain. The steel industry was greatly agitated and it was stated to a committee of the War Industries Board, at a meeting held early in May, that, if importations of manganese were cut off at that time that the steel industry would be paralyzed by September first; that ninety per cent of the steel production was for strictly war purposes; that efforts had been made to discover manganese ore in this country during a period of several years and that no adequate supply had been discovered, and the appeal was made to the Shipping Board that sufficient vessels should be released to permit the continued importation of manganese ore in order that a three months margin of supply should not be diminished. It was stated that it was the steel industry's habit to have on hand at least one year's supply of manganese, and that a three months' supply was approaching the danger point. Every argument was used by the steel representatives to induce the Shipping Board to release a greater amount of shipping in order that this supply should not be diminished and that the future of the steel manufacturing industry should not be endangered by a shortage of manganese ore. At that time the supreme energy of the nation was concentrated in an effort to get our soldiers to the front. Only a short time before, on March twenty-first, the German army had broken through the British lines; it was up to America to save the day. The soldiers must be rushed to the front and every pound of shipping available must be utilized for that purpose. The appeal was made by the Government representatives to the American people to produce manganese, chrome, tungsten, pyrites and those war materials which were absolutely essential to carry on the war. In every other line legislation had already provided the power to purchase the needed war supplies but no provision had been made for the purchase of minerals. A War Minerals Bill was under consideration by Congress, with the approval of the President and the departments. Congressional Committees were giving hearings on the bill to provide an appropriation of fifty millions of dollars through which the Government might supply these pressing war needs. The necessity for such legislation was based upon the fact that these special supplies had heretofore been furnished by foreign countries, produced by cheap labor, transported as ballast in ships at a very low freight rate and that except under the protection of a very high protective tariff, it would be impossible for these industries to survive in normal times. Patriotic impulses have met the governmental needs and war minerals have been produced in adequate quantities. The sudden termination of the war has left sundry American citizens with investments upon their hands as high in one particular case as $750,000, which are practically worthless, except the production from these mines can be sold in the American market. There may be those who have anticipated that the War Minerals Bill was intended to purchase their ores and thus make a market. This, however, would be but a temporary expedient. All of the ores produced must be utilized. Those withdrawn from the market now must come into the market later. For the Government to now purchase and hold is but to put off the day of judgment. All of these ores must be used in this country and it is only fair to these producers, who have spent their money in patriotic response to the appeals of the national Government, that they should have the American market in which to sell these ores protected from the cheap importations from foreign countries. The War Minerals Bill was intended to meet this situaion. If it shall be found that it fails to meet it because of technical construction of its wording, then Congress should immediately provide for the situation. The producers of these minerals ought not to expect the Government to buy, but they have a right to expect that the American market shall be available at a compensating price.

DEMAND FOR COPPER WILL BE ACTIVE DURING RECONSTRUCTION

By Walter Douglas

President American Mining Congress

What will post-war conditions be in the copper mining industry? An intelligent forecast can only be made if certain hypotheses of Federal action can be assumed. The principle of Government control of industries producing essentials of war has been accepted by those industries as a war-time measure and with the tacit understanding that with the termination of the struggle such control would be removed and the law of supply and demand again come into force. It must now be admitted that a termination of the war does not and will not mean an immediate return to pre-war conditions and that pending readjustment and refinancing, it may be necessary and desirable that the Government should, for a period, continue to exercise, with the consent of the industries, its control of prices and production tonnage. Should this not be done, and should, as is probable, the demand for the commoner metals be temporarily curtailed and the price depressed, a very serious crisis would confront not only capital but labor. As the present abnormally high wages being paid in the mines are to a certain extent based on the increased cost of living and as such increased cost, especially as applied to the necessaries of life, can not be materially decreased until the armies are demobilized, it is obvious that labor cannot accept a serious reduction in its income. Reconstruction of devastated Belgium and Northern France and replacement of the copper stocks of the Central Powers will in time make the demand for the red metal active, and it can be fairly assumed that the average price will not again be as low as in the past, any more than it can reasonably be anticipated that the wage rate will ever return to its former level.

After the necessary, though indefinite, period of readjustment is passed, the demand for copper will, I think, be so great that the producer will be enabled to demand and obtain a sufficiently high price for his product to permit of a high rate of wages being paid and the mining of the low grade ore deposits, on the successful exploitation of which the future prosperity of the industry depends.

Gold Restriction Lifted

The War Industries Board announced Nov. 16 that the restriction heretofore imposed on the domestic uses of gold and silver for industrial purposes, has been terminated.

Asked to Help Save Natural Gas

Mayors of natural gas using towns of Ohio Pennsylvania, West Virginia, New York and Kansas have been asked by the Fuel Administration to cooperate in the conservation of natural gas, of which there is now a definite shortage.

The rapid growth of the industry, as a result of war activities, is responsible for the increased demand which is much greater than the supply. This is having a serious effect upon domestic consumers and there is a danger that there will not be enough to go around this winter.

Mayors of natural gas using towns were requested to urge consumers to eliminate wastes and help in the conservation work through every possible channel. The re[illegible] received so far indicate a cordial spirit of compliance.

Of all towns in the United States that have gas, more than half are using natural gas and more than three-fourths of all the gas sold in the United States is natural gas. Of all natural gas sold two-thirds is used for industrial purposes.

Enforcement of "Clean Coal" Order

The United States Fuel Administration has not relaxed in any degree its vigorous dealing with mine operators who willfully ignore the regulations laid down for the careful preparation of coal to free it from impurities before placing it on the market for consumers.

Four mines were ordered to shut down during the week ended November 16, after reports of Federal inspectors had furnished convincing proof of the practice of poor preparation of coal at the mines. Three other mines, which previously have been forced to suspend for the same reason, were allowed to resume operations upon promise to abide by the regulations.

Since the Fuel Administration placed the ban on "dirty" coal, a total of 119 mines have been shut down. Of this number 12 have received permission to resume.

REVENUE LEGISLATION AFFECTING MINES

By A. Scott Thompson

Chairman, American Mining Congress Committee on Revenue Legislation

Note.—*The American Mining Congress Committee on Revenue Legislation consisted of Judge A. Scott Thompson, Miami, Oklahoma; Paul Armitage, New York; Edward L. Doheny, Los Angeles, California; George E. Holmes, New York, and John C. Howard Salt Lake City.*

This committee is the result of natural selection from more than three hundred different men from all sections of the country, who have had to do with this movement for a just application of war revenue taxation to the mining and oil industries. Each of these men has rendered valuable service in this behalf and many of them particularly valuable service. The members of the committee were able to give more largely of their time and developed such capacity for service as to make their selection a matter of course. The mining industry will never appreciate its indebtedness to these men. Particular credit is due the chairman of the committee, Judge A. Scott Thompson, who, for months, devoted his whole time to this work. His distinguished service in this behalf should be to him a crown of honor.—Editor.

The revenue bill of 1917 became a law October 3, 1917. It was the first attempt of the Government to raise so large a sum of money by direct taxation or by any other method. The revenue committee of the House gave little or no opportunity to business to be heard in preparing the measure that was to take from business so largely of its income. The House reported and passed a measure that was unsatisfactory to the Senate and country. The Senate prepared a revision thereof upon an entirely different basis and the two bills went into joint conference. In the hurry of the Congress to adjourn the conference committee agreed upon a tax bill that little resembled either the House or Senate bill. It was adopted by Congress with little debate or opposition.

Upon a study of the law the business interests of the country became aroused to the fact that many unfair, inequitable, and confiscatory provisions were in the law. An appeal was made to Commissioner Roper and as a result he selected a body of men to sit as an advisory board in drafting regulations in collection of the tax.

This advisory board was composed of representative business, technical and professional men. A direct request to the Secretary of the Treasury that at least one member of this board should have practical knowledge of the wasting industries like mining was not approved.

The American Mining Congress immediately, upon the passage of the bill and upon the discovery of the vicious provisions thereof, sounded the alarm among the mining men of this country. It was not until the forepart of December that representative mining and oil men gathered together in the offices of the American Mining Congress at Washington fully aroused to the disastrous effect upon their industry which a liberal enforcement ot the statute would cause. The advisory board had been having open hearings, but these were closed and no opportunity to present the claims of the mining industry could be had. The secretary of this organization appealed for a hearing for the mining and oil men. Senator King of Utah, with his usual energy and force, secured an interview with Senator Simmons, chairman of the Senate Finance Committee. About sixty men, representing the great mining and oil industries of the United States, were piloted by Mr. Callbreath to the office of Senator Simmons, where they were met by Senator King, who urged the chairman of this important committee to give due consideration to our complaint, and being familiar with the problems of mining, he was able to point out many inequitable provisions of the law as applied to mining and all other industries whose chief asset was of a wasting character. Senator Simmons listened to the many statements, and at the conclusion of the meeting expressed his interest and immediately requested Commissioner Roper to convene the advisory board to hear the mining and oil men. This was done. From this time on the commissioner and the board of advisers and a committee of the American Mining Congress gave a great deal of time to the peculiar problems of mining from a tax standpoint.

Frequent conferences were held with the treasury officials and the advisory board in formal and informal meetings. We found the commissioner and his board anxious to execute the law so as not to destroy business.

This was a difficult problem with the unscientific, unworkable and inequitable law as their guide. It is to the credit of Commissioner Roper and his assistants that the department proceeded to make the law workable by regulations, authorized or unauthorized, which provided the revenue to the Government and did not wholly confiscate property as a literal enforcement would have done in many cases.

The excess profits law was fundamentally bad. It was based on invested capital and in case of corporate business the invested capital was limited to the par value of stock exchanged for tangible property where the exchange occurred prior to January 1, 1914, but full value of property so exchanged after such date.

We have found no one identified with tax legislation who will claim credit for this incongruous limitation. Anyone familiar with corporate business knows that par value of stock is no measure of the invested capital in an enterprise. Cash paid in and the value of property paid into a corporation is the right definition of invested capital, with proper additions for earned surplus

This provision of the law, if enforced literally, would have destroyed many conservatively organized corporations and especially would this have been true of mining companies. It penalized and discouraged legitimate organization and placed a premium on watered stock and inflation of stock issues.

Our committee, realizing the danger of this provision to our industry, urged upon the department the necessity of softening it with a regulation.

The department finally, in February of this year, published regulations 41, 52 and 63 and other articles which permitted the tax payer to report a fair tax to the Government and enabled him to stay in business.

Article 63 authorizes the corporate tax payer to credit invested capital with the excess value of tangible property over par value of stock exchanged therefor as *paid in surplus.* This placed the new and old corporation on an equal basis and removed the penalty imposed by the statute on conservative capitalization.

Article 52 breathed life into section 210 of the statute and enabled the department, through the Board of Tax Reviewers, to take care of extreme hardships in the application of the tax by a form of constructive capital. Many businesses were saved from confiscation of assets by this article.

We might enumerate other rulings and constructions obtained that were beneficial to the mining industry, but it would make this article too tedious to the reader. We mention the depletion allowance permitting the operator to charge all cost of development up to the period where the income equals the operating expense.

These regulations made the tax workable and the reader will discover in examining the new Senate bill that our work has resulted in passing into the new law the regulations we worked for and that were adopted by the department last winter. When it was determined by congressional leaders that a revision of the revenue laws would be undertaken this year, the American Mining Congress, through its tax committee, planned to present to the congressional committees the peculiar problems of mining and the necessity of any fair tax-raising measure recognizing the distinguishing characteristics of mining, viz., (1) the chief asset, ore deposits, continually wasting and being lessened, and (2) the extra hazard or risk that is present in all mining. We were not able to do much with the House Committee for the reason we were at sea as to what kind of a bill would be recommended and upon what theory the tax would be assessed. Having no bill before us, we were confined to a general statement of conditions and problems peculiar to mining and the defects of the old law. Emphasis was laid on the fact that depletion under the existing law in many cases was insufficient and that some special treatment of the sales of mining and oil properties should be made. This is a statement of a condition and need, well known to all mining men.

GEO. E. HOLMES.
Member American Mining Congress Committee on Mine Taxation.

The House Committee gave us some relief

in depletion allowances in providing that all such allowances should be granted according to the "peculiar conditions in the individual case" and extended the privilege to lessees.

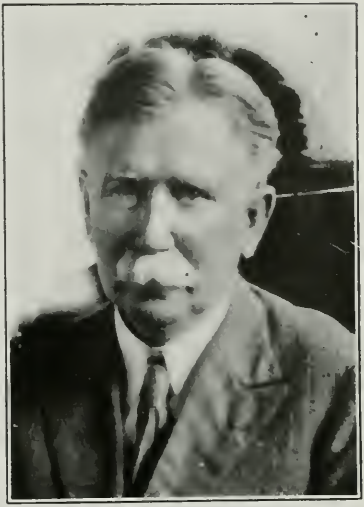
This at first blush may not seem material, but a careful study of the problem and a knowledge of conditions in a great many fields will enable one to see the improvement.

This will enable the department to give depletion credits as the individual case demands. For instance, the Joplin-Miami field, where operations are done on short term leases and the average life is short, the department may permit in the individual case, if necessary in order that justice may be done, a more rapid return of capital through depletion credits, and in extreme cases the full capital may be returned before any tax is paid.

The House bill, however, still contained the vicious limitation of invested capital where property was exchanged for stock to the par value of the stock and went further, in our judgment, by making it impossible by Treasury regulation to allow the excess value as paid in surplus.

The House bill provided a corporate income tax of 12 per cent on net income, with a 6 per cent penalty on all undistributed earnings. It also provided for an alternative profits tax, assessing under the excess profits method with greatly increased rates, or the war profits plan, whichever produced the greater tax. A serious objection to this alternative plan was found by our tax committee in that the war profits plan allowed as a deduction the whole of pre-war profits, but in case of a new organization having no pre-war earnings, the deduction was fixed and limited to 10 per cent of the invested capital. This was grossly unfair to the new corporation and especially to companies engaged in mining where normal earnings were more than 10 per cent. We pointed out this discrimination, showing that under a given normal condition with two corporations, one old and one new, with similar capital and earnings, the new corporation would be compelled to pay 90 per cent more tax than its competitor. This might not be so serious if the tax were 5 or 10 per cent of the earnings, but where the tax is 50 to 80 per cent the seriousness of the discrimination becomes apparent. This plan is so unreasonable, unfair, un-American and so destructive of competitive business that we are at a loss to understand the reasoning of the men standing sponsor therefor.

The tax committee of the American Mining Congress prepared to contest these provisions before the Senate Committee. Mr. Callbreath, secretary, and Mr. A. Scott Thompson, chairman of the committee, appeared before the



E. L. DOHENY.
Member American Mining Congress Committee on Mine Taxation.

JOHN. C. HOWARD.
Member American Mining Congress Committee on Mine Taxation.

Senate Committee in open hearings and presented objections to the House bill and proposed eight concrete amendments which appeared in full in the October issue of THE MINING CONGRESS JOURNAL and will not be reprinted at this time.

At this writing the Senate Finance Committee is about ready to report its amended bill to the Senate and we are greatly gratified to know that seven of the eight proposals made by our committee have been approved, either in the exact language proposed or in substance.

STEEL MEN ASK CONTINUATION OF GOVERNMENT SUPERVISION

The first industrial conference to be held since the armistice was signed took place when the General Committee of the American Iron & Steel Institute met the War Industries Board in Washington on Nov. 12. The meeting was presided over by Bernard M. Baruch, chairman of the War Industries Board, and was attended by J. Leonard Replogle, Hugh Frayne, George N. Peek, Judge Edwin B. Parker, Robert S. Brookings, Herbert Bayard Swope, T. C. Powell, Frank Purnell, Judge Albert C. Ritchie, D. R. McLennan, Mr. Clark and H. P. Ingels, members of that organization.

The Iron & Steel Institute's Committee was headed by Judge E. H. Gary, and in the delegation were the following gentlemen: James A. Farrell, E. A. S. Clarke, A. C. Dinkey, Willis L. King, L. E. Block, J. A. Campbell, E. G. Grace, John A. Topping, A. F. Huston, H. G. Dalton, James B. Bonner and J. A. Burden.

The discussion followed general lines regarding trade conditions, both of national and international nature, and with the main purpose of preserving industrial stability.

The Iron & Steel Institute Committee, in the course of its suggestions, made emphasis upon the point that a continuation of governmental supervision of industry for the present was highly desirable. It was agreed that many changes in operating conditions of the steel mills will be necessary in the transition from war to a peace basis. Some cancellations and adjustments in war contracts will follow, but owing to the removal of many restrictions imposed on non-war industries and the immediate demands of such industries and a probable resumption of Federal, State and Municipal improvements which had been temporarily suspended, and the demands from abroad for foreign construction which are already taking definite shape, it is believed that the transition can be accomplished in an orderly and systematic way.

The discussion was entirely informal, and was characterized chiefly by a spirit of cooperation between the Board and the industry that was as strong as that which existed during the war pressure

MORE THAN 1,300 CARGO SHIPS NOW FLY U. S. FLAG

By EDWARD N. HURLEY

Chairman of the United States Shipping Board

With more than thirteen hundred cargo ships flying the American flag on the high seas, the United States enters the period of commercial reconstruction in a most enviable position.

Terrible as may be the thought that Germany's plan for world contest and the ruthless and useless slaughter of human life has profied the world—it is true that it took just such a monstrous catastrophy to teach all nations the futility of conquest. It is equally true that it took just such a calamity to awaken the slumbering spirit of the United States.

We are literally stretching our legs as a full-blooded young giant just awakening from a long sleep, ready to try his strength in a new and glorious venture.

Economically, and I might almost say militarily, we are the best prepared nation on the earth. And I do not fail to credit our allies with their due. Until today we have never known our strength, but we now care to utilize this strength entirely in the world of commerce.

Our vast resources are now catalogued and mobilized. Our financial strength is measured. Our man-power is known. And the "bridge" which we built over the 4,000 miles of deep sea, that our soldiers and allies might have food and guns, is now to be used for our commercial expansion.

Before the war, eight per cent of our exports were carried in American ships. Our expenditures for freight were enormous, and the money went into foreign treasuries. Henceforth, this money will travel back into American banks and national treasury.

And our fleet continues to grow with the months. It is modern, operated under modern power and manned by clean-cut young Americans. We have reason to feel proud of the fact that we are equipped to enter the new era with a merchant marine typical of our new national spirit.

The total tonnage hauled by American railroads is about 1,200,000 000 tons and of this, I am told, 65 per cent represents the products of our mines. This fact brings our fleet close to the heart of the mining industry, for the expansion of trade means a world-wide distribution of products manufactured from our metals, minerals and chemicals. Henceforward, we, as a nation, will think in terms of foreign trade.

Previously our vision has been limited Some of us have thought the competition with other countries meant maintenance of low standards of living—low wages in our own. I believe this was wrong thinking then, I am sure it is wrong now, for one result of the war will be higher standards of living for labor, the world around. A fair return for labor performed will be the rule rather than the exception. As manufacturers we will lay the foundation of national prosperity, as well as foreign trade by studying together with our employes, the most efficient methods of producing high quality goods.

If ever there was a time when America attempted to establish international commercial relations on the basis of cheap goods produced by cheap labor, that time has passed and will be no more, but to attain this ideal, we must enter the readjustment days with a spirit of consideration one for the other. There can be no demand by one beyond the power of the other to give.

In this spirit, backed by vast equipment and efficient business organization, we need have no fear for our future.

NO OCCASION FOR MISERY OR ANY UNEMPLOYMENT

By Felix Frankfurter

Of the War Labor Policies Board

"There is no occasion whatever for any unemployment or misery in this country. There are enough jobs if we carefully make the adjustment that has to be from an energetic war production basis over to the eventual peace basis. With that end in view the Secretary of War, the Secretary of the Navy and Chairman Hurley of the Fleet Corporation, who are the three big production chiefs, met yesterday and at once began the gradual process of adjustment by agreeing to cut out Sunday work and all overtime on government contracts.

"Secretary Baker has also given orders that there should be no curtailment of war work in the War Department, which is of course the biggest war producing agency, except after consultation with representatives of the War Industries Board and the Department of Labor. The point is that before you cut down what releases raw material, the War Industries Board should know where the material is and the Department of Labor, through the Employment Service should be able to take up any labor released so that there should be a minimum of dislocation involved in turning the country over to a peace basis.

"Chairman Hurley indicated that the ship industry would go on in this country and would need as many men as they have now. The whole process is to guide the thing with the necessary intelligence and foresight. As to the wage scales there should be no quick changes because that would be an unhealthy process. I think we want to make a gradual healthy adjustment. I think if the interests of labor are adequately represented in working out these things, labor with the rest of the interests of the country will accept what changes are necessary in going over to a peace basis.

"What labor should have is what the country is entitled to have. That is the change should not be one-sided, but fairly representative of the government, labor and industry.

"I think there will be a gradual shifting of labor over to peace jobs. We are trying through the Community War Labor Boards to find out what the local community needs are. Some labor will be shifting of course, but a great deal of the movement of labor has been in the shipyards and Mr. Hurley's anticipation is that the ship industry will continue at its present activity. Overtime and Sunday work will be cut out. These were merely necessities of the war emergency—abnormal methods. We must fasten our minds on this. The needs of this country and the needs of the world call for great productivity by the United States of all kinds of goods, if we keep our heads and if we work these things out in a cooperative way, there ought to be very little dislocation in turning this nation over to peace purposes.

'I cannot speak in detail of the definite plans of the Department of Labor. Its problem arises from the demobilization both of men actually under arms and men in industries whose activity will be terminated by the war. It is a question of utilizing labor and it is a question of industry. The function of the Department of Labor is to assist the process of absorption of men after they are released from the army, and therefore it is evidently a concern of the Department of War, of the Department of Labor and the Navy. The task ahead now is for us to work out in detail the principle of cooperation everybody recognizes as essential. It is a question of getting details properly worked out by some definite agency consisting of representatives of the Department of Labor, of the Navy and the War Industries Board"

Use Large Supplies of Coal

Orders for 4,350,811 tons of coal and coke have been placed by the War Department, for use in army camps, posts, forts, proving grounds and hospitals throughout the United States for the fiscal year of 1919. This tonnage consists of 3,691,650 tons of bituminous coal, 642,728 tons of anthracite coal and 16,288 tons of coke.

The winter supply of coal at the various camps is rapidly accumulating and considerably more coal is on hand now than at the same time last year. On July 1, 1918, the reserve was 190,000 tons. By October 12, 1918, it had been raised to 530,308 tons. The fuel supply at posts most distant from coal fields is receiving particular attention.

USES OF ZINC ARE CAPABLE OF IMPORTANT EXPANSION

By Geo. S. Stone

Of the War Industries Board

As brass, aluminum and tin plate are all scarce at the present time, it is very desirable that zinc should be substituted for them whenever possible, particularly as in many cases it is better material. The zinc smelters and rollers have largely increased their plants to meet the requirements of the Government. Their present capacity is about double the normal prewar demands. If the use of zinc can be expanded, it will enable some of these plants to run that would otherwise be obliged to close down.

The possibility of increasing the uses of zinc are very large, particularly in the case of rolled sheet. In this country the rolled zinc produced has never been more than 10 per cent of the production of spelter, while on the continent of Europe many of the largest producers roll from 50 to 100 per cent of their output.

The largest tonnage uses of sheet zinc in Europe are for roofing, cornices, architectural ornaments, gutters, leaders, and flashing, all of which are much more durable when made of zinc than when made of galvanized iron or tin plate, as is usual here. In all of these cases painting is unnecessary except where desired for decoration. In the few cases in which zinc roofs have been used in this country, they have remained in good condition for forty or fifty years though entirely unpainted.

Zinc, both cast and rolled, can be substituted for other metals in many cases. Possibly the increased use of castings is even more important at the present time than that of sheet zinc, for two reasons: 1st: The present demand for sheet zinc nearly equals the capacity of the mills and cannot be increased without new construction in rolling mills and probably modifications in the machinery for forming the sheet into useful shapes. It will, moreover, require considerable time to educate the pubic to the advantages of zinc for roofing, which is the use that will eventually require the largest tonnage. 2nd: The spelter producing capacity of the country is now in excess of the demand, and therefore ample material for castings immediately available. It is also probable that a larger tonnage of castings than sheet could be quickly substituted for other metals. In some cases, castings might be used to advantage in place of sheet.

If zinc is to be used as a substitute for the scarcer metals, information regarding the methods of working it should be collected by the Government and be distributed to the manufacturers interested. Some time since, the Bureau of Standards started a series of experiments to determine the physical constants of zinc. It would be desirable to have the Bureau publish what has been done, and to complete these tests as soon as possible. It would also be desirable to have a similar set of tests made on rolled zinc.

ROLLED ZINC

In a very large proportion of the uses proposed for rolled zinc, it is pressed or drawn into shape. All of the work so far done in this direction has followed the practice used with brass and tin plate. Zinc is much more ductile than either and could probably be formed in fewer operations than these other metals. This would allow of using fewer machines and operatives, or of obtaining a larger output from the same number. Experiments should be made to ascertain how far this is possible, and also to see whether there is any advantage in slightly warming the metal before pressing. Experiments should also be made to determine the best form of material for dies for wire drawing, the best lubricant, and the amount of reduction permissible for each pass. It might be well to suggest to the manufacturers of sheet zinc that it would be to their advantage to undertake to demonstrate that zinc can be more easily and cheaply pressed and drawn than the metals for which it is proposed to substitute it.

CASTINGS

Information regarding castings can readily be obtained and should include the following:

Molds, material and kind.

Mold facings.

Pouring temperature.

Methods of cleaning castings.

Methods of plating with gold, silver, nickel and brass.

Lacquers.

Polishes for keeping the natural surface of zinc in good condition.

The disadvantages of zinc that must be kept in mind in proposing it as a substitute for other metals are the following:

1. It is quite soluble in both acids and alkalies.

2. Its strength is comparatively small and may be seriously reduced by exposure to relatively low temperatures (above 300 deg. F.)

3. Its coefficient of expansion is high, about double that of steel.

4. It is not fire-proof, but can be burned in a hot fire.

Its advantages are:

1. It is very little affected by the ordinary atmospheric agencies as when exposed to the weather it soon becomes coated with a thin and firmly adherent coating of the basic carbonate, which completely protects it except from acids.

2. It is very ductile and is easily formed into complicated shapes.

3. It is susceptible to a high polish, or can receive a dull or frosted polish.

4. It can readily be plated with gold, silver, nickel or brass, and given any of the finishes commonly used for brass or bronze articles.

5. It can be enamelled, but care must be taken that it is not overheated in baking the enamel. Experiments so far made indicate that no harm is done by a temperature not exceeding 300° F.

The following lists give the purposes for which zinc has been proposed or is already used:

Castings—Builders' hardware, cabinet makers' hardware, coffin handles and trimmings, screw-machine rods, battery zincs, lamps, electric light fixtures, candle sticks, ink stands, trays (ornamental), jardiniers, ash receivers, match boxes, lamp shades, statuary, statuettes, clock and mantel ornaments.

Rolled Zinc—Addressing machines, addressing machine plates, alarm clocks, architectural ornaments, badges, bands for pipe covering, dry batteries, bin linings for powder, bin linings for rubber, boiler plates, bottle caps, buttons for clothing, buttons for souvenirs, caps for bottles and jars, caps for electric plug fuses, cameras, case linings, casings for flash lights, casket cases, checks, mail chutes, containers, clocks, cornices, corset steel tips, cremation urns, ornamental cups for prizes, etc., curves for draughtsmen, cyanide shavings, dials, draughtsmen's rules, curves and straight edges, electric fixtures, electric fuses, electric plug clusters, electric reflectors, electric stand lamps, electric switch push plates, electric wall plates and sockets, embossing plates, engravers' plates, etchers' plates, export case linings, eyelets, ferrules, files, rods, fixtures for gas or electricity, flashing, flash light casings, flush tank linings, picture frames, fruit jar tops, fuse boxes, gaskets, gas masks, glaziers' points, grain separator screens, guards for pencil points, etc., gutters and leaders, heel plates for women's shoes, hull plates, humidors, jar tops, plated jewelry, lace tips, laundry tags, leaders and gutters, lens holders, license plates, lighting fixtures, linings for bins, cases, refrigerators, etc., lithographers' plates, lunch boxes, magneto manufacturers, mail chutes, gas masks, metal buttons, metal cornices, meter cases, trench mirrors, nails for shoes, stamped name plates, name plates, organ pipes, architectural ornaments, packing case linings, patterns for marking and cutting cloth, etc., pencil point guards, pencil tips (for rubbers), picture frames, bands for pipe covering, pipes and tubes, plates, license, name, etc.; points, glaziers'; powder cases, putting green cups, reflectors, refrigerator linings, rods, roofing, rulers, straight edges and curves, screens for grain separators, screw machine rods, Schrader valve boxes, shade roller tips, shoe lace tips, shoe nails, shoe polish boxes, shot cartridges, shrapnel cases, signs, small sporting cartridges, snow shovel tips, souvenir buttons, spark cap terminals (radio), splints for fractures, spun urns, stamp pad boxes, stamping machine ribbon, stove boards, straight edges, tags, tennis court line markers, terminals, spark cap, for radio, terra cotta molds, threshing machine screens, tips for laces, etc., tips for pencils, to hold rubbers; tobacco containers, toilet preparation containers, trench mirrors, tubes and pipes, typewriter ribbon boxes, war munitions, wash boards, washers, washing machines, weather strips, weather proof socket casings, webbing tips, window sash fasteners, wire.

GENERAL TRIPP IS OPTIMISTIC AS TO INDUSTRIAL FUTURE

Brig. Gen. Guy E. Tripp, one of the "dollar-a-year men" while in the government service, has returned to New York to take up once more his duties as chairman of the board of directors of the Westinghouse Electric and Manufacturing Company. As chief of the production of ordnance, he believes his duties are now over, and that the President having accepted his resignation he is glad to return to civilian life. General Tripp goes back optimistic regarding our industrial future. He is inclined to think that the transition period between war and peace will not be of great duration and that this country will reestablish itself with the minimum of shock. When asked about industrial conditions, General Tripp said:

"I am an optimist. I know there are those who believe that we will be two or three years in changing from a war to a peace basis, but such thoughts do not fit in with my estimate. For my part, I think you will see the transition largely accomplished within six months, and so smoothly that we will hardly realize the change we are undergoing. The entire problem of change is being handled admirably in Washington.

"Already we can see the gradual easing down which is in process. It is not so noticeable as to create a jar but it is beginning to be accomplished, and I think it will go along without much friction. When I say that six months will find the industries of the country on a peace footing, I, of course, do not mean that we shall be working at full capacity. That may take more time, but at all events the greater part of the transition will have been accomplished. The country is turned to pick up its industrial work easily. There are tasks which must be aided in; for instance, we must help in the restoration in France, so that all our energies cannot be turned toward industrial expansion. Whether there really is to be industrial expansion of the scope predicted in some quarters is, I think, difficult to judge. It is hard to estimate just what the effect of this enormous public debt is going to be."

M. F. CHASE.

Who was head of the Explosives division of the War Industries Board when the work was turned over to the Bureau of Mines.

OVERSEAS DEMANDS FOR GASOLINE TO BE MET FIRST

Overseas demands for gasoline or kerosene are to be fulfilled hereafter ahead of all domestic needs in order that there may be an uninterrupted flow of such supplies for the American and allied forces.

To assure the prompt and expeditious handling of these shipments from the refinery to the seaboard, the United States Fuel Administration has promulgated a regulation giving priority at refineries on all shipments for overseas use.

The order of the United States Fuel Administrator follows:

"No licensee engaged in the business of manufacturing kerosene or gasoline shall, without the consent of the United States Fuel Administrator, make any deliveries of kerosene or gasoline to any customer or consumer, whether the licensee is under any contract to make delivery to such consumer or customer or not, if such licensee shall be in default in delivering kerosene or gasoline which such licensee may be from time to time directed by the United States Fuel Administrator to deliver for export for the United States Army or Navy or for the Allies.

WAR MINERALS BILL TO BE ADMINISTERED BY LANE

Powers conveyed by the War Minerals Act have been delegated by the President to the Secretary of the Interior. The President excepts the powers referring to duties on imports. This latter power, however, may not be delegated by the President.

Secretary Lane has not exercised any of the powers granted, but at this writing, November 25, matters in this connection are developing very rapidly.

It is practically certain that an intensive campaign will be undertaken to make the United States independent in the matter of potash. It is also believed that means will be found under the bill to protect producers of chromite, manganese and pyrites, who are facing a serious situation as a result of the ending of the war and the large supplies of these materials.

Zoning System Saving Millions

Estimates made earlier in the fuel year, that approximately 160,000,000 car miles would be saved in the coal year through the operation of the zone system for the distribution of bituminous coal, are being fully realized, it was announced today by the United States Fuel Administration.

This system, made possible through the close co-operation of the United States Railroad Administration with the Fuel Administration, has had a large share in bringing the nation's supply of bituminous coal to its present proportions, which, with patriotic economy, will be sufficient for the winter's requirements.

This method of distribution was established so that the coal supply of all sections of the country should normally be derived from mines relatively near, thus preventing a normal and wasteful transportation movements, and insuring more equal distribution of cars to the mines and the more steady employment of mine labor.

Early estimates were that the movement of bituminous coal affected by the zone system would involve about 300,000,000 tons, or 60 per cent of the total production. The latest figures, show that 368,858,000 net tons of this kind of coal have been produced and delivered since April 1, 60 per cent of which is affected by the zone system.

These later figures show that even more than the originally estimated 160.000,000 car miles will be saved in round-trips to and from the mines and that considerably more than the 300.000 additional trips which the saving in car-miles would effect, will be made. Exact figures have not been compiled, but the early estimate allowed for the 300,000 additional trips being the equivalent of 5 per cent increase in the production.

COOPERATIVE COMPETITION IS RAPIDLY GAINING ACCEPTANCE

By Daniel C. Roper

Commissioner of Internal Revenue

Every man's mind is now occupied with the problems of reconstruction which are before us. An army of three million men is awaiting orders to demobilize. The industry and commerce of the country, which have been diverted from their normal course, must take up at once the pursuits of peace—the production and distribution of all those things which are so urgently needed by our own people and by the prostrated populations of Europe. Not the least of our problems is the making of adequate provision for the debt which the war has imposed on the Government and for the continuation and completion of the enlarged duties of the various governmental establishments.

A clear understanding of the taxation program requires careful consideration of the revenue needs of the Government and a survey of the steps which have already been taken in the establishment of administrative policies and procedure.

The debt which has accumulated is so large that the payment of interest and the provision for repayment of the principal creates at once fixed charges exceeding all pre-war expenditures of the Government. These fixed charges will continue for years, and in addition the expense must be met of carrying on the current government business which has been greatly expanded. We must expect present rates of taxation to be substantially maintained and reductions to be made only gradually from year to year.

In every enterprise of business and industry, account will have to be taken of the incidence of federal taxation. From every accumulation, a portion must be reserved for the Government. Provision must be made for financing and meeting large tax payments with the least possible disturbance and inconvenience. Above all, the system of taxation must not be permitted to retard the commercial development of the country or to discourage the initiative and enterprise of our people. It must rather become a stimulus to redoubled activity and effort and the motive for attaining the highest possible degree of productiveness and efficiency.

Of the total internal revenue collections in 1914 the individual and corporation income taxes constituted less than 16 per cent. In 1918 they constituted more than 80 per cent. Income taxes collected in 1914 were less than $61,000,000; in 1918 the collections were almost $3,000,000,000. Alcoholic beverages and tobacco yielded in 1914 about 80 per cent of the total revenue. The amount was $306,166,328. For 1918 collections from these sources constituted slightly more than 16 per cent and amounted to $600,028,203.

An important effect of the general application of direct income taxes will be the impetus given to the keeping of adequate records of account. The necessity of ascertaining the amount of tax due to the Government will disclose the condition of many enterprises which have heretofore been conducted in an irresponsible way. The constructive possibilities of accounting are now recognized in all modern business establishments and the extension of this understanding will be beneficial not only to the individuals concerned but also to every business community, for the stability of each enterprise has a certain bearing on all others. All clear-sighted business men will recognize that it is desirable that adequate provision for the payment of taxes should be regarded as a normal element of every business. Tax payments, like other transactions, should be carried out in a business-like manner. Efficiency and good will may be promoted by following the same principles of promptness, directness, and accommodation which are observed in the conduct of good business generally. The Internal Revenue Service is proceeding in the development of its organization and methods in the belief that the attitude which I have described will be generally characteristic of American business men as taxpayers under the revenue system which the Federal Government has now entered upon.

It seems to me that the light which we seek to follow in the administration of the tax laws is the same light that guides every intelligent business man in the conduct of his affairs. This understanding proceeds from confidence in the integrity of others and the confirmed conviction that permanent success comes only from the scrupulous observance of every just obligation. Viewed in its largest and truest sense, the payment of taxes is payment for benefits received or expected. Only from a narrow and essentially selfish and shortsighted viewpoint, can the individual propose to himself the evasion of tax liability as a desirable course of action. The damage to those who follow this course may be intangible but it is none the less real. It breaks down moral fiber and impedes the highest degree of intellectual development. The same unfortunate defect is produced in the individual who employs in dealing with his fellowmen the methods and practices which do not accord with the ethics of modern business.

The ideals for which your organization stands include, I believe, the development and encouragement of business integrity and the harmonizing of business principles with civic and national purposes. The pursuit of these ideals is responsible for the great development and improvement of commercial organizations in the United States. Business is no longer dominated by the purely selfish rivalry and struggle for supremacy between individuals engaged in the same lines of business.

The principle of cooperative and constructive competition is rapidly gaining universal acceptance. It is coming to be recognized that the interests which business men have in common are more important to all and more important to each individual than the interests of each which may seem to be opposed to the interests of others. It must also be recognized that the interests which the taxpayer and the Government have in common greatly exceed in importance any differences which may arise as to the adjustment of the tax burden.

From this understanding, which I believe must become universal, will proceed a spirit of accommodation, which will make it only proper for the Government to continue the policy of openminded and evenhanded administration of tax laws.

NEW LABOR SURVEY BY U. S. EMPLOYMENT SERVICE

At the request of the Secretary of War and the Chairman of the War Industries Board, the machinery of the United States Employment Service has been set in motion for the making of an immediate "sizing up" of the labor situation in industrial centers throughout the country.

The purpose of the information sought, which will be gathered by the community labor boards of the United States Employment Service, is to enable the War Department and the War Industries Board to avoid causing unemployment through too rapid curtailment of war contracts or too rapid demobilization of the army.

First returns from the boards are expected to be received by next Tuesday or Wednesday. This will give to the Government a bird's-eye view of the immediate labor situation, so that by next week it will know in what centers there is shortage or surplus of labor and whether demobilization in those centers can be rapid or slow.

Approximately 100 industrial centers and the same number of industries are being covered in this initial "size up." The community labor boards will get their information as regards local labor conditions by means of personal contact and telephonic communication with employers, plant managers, employment managers, labor organizations, commercial bodies, the local employment offices of the United States Employment Service and other sources.

The Employment Service will continue to act as an intelligence medium for the War Department and War Industries Board and will make weekly reports on local labor conditions to the War Industries Board and the Federal directors of the Employment Service for the States. A corps of expert organizers of the Employment Service has left Washington for various parts of the country for the purpose of instructing the community labor boards in this further work. All are men familiar with industrial processes and a number of them have been detailed to the service by the War Industries Board.

The composition of the community labor boards makes them peculiarly fitted for gathering the information desired. Each board consists of a chairman representing the Employment Service, and a representative each of labor and management. On a number of the boards there also are two women members, representing women workers and employers of women.

In his letter to Secretary of Labor Wilson, asking that the community labor boards of the Federal Employment Service perform this task, Secretary of War Baker said in part:

"The War Department, in dealing with the problem of demobilizing the army, is anxious that the matter should be so handled as not to create any considerable amount of unemployment. If this is to be done, it is very necessary that we have the most dependable available information on the condition of the labor market in the principal industrial districts of the country.

"The information also could be of great value to the War Department and to the War Industries Board as a guide in handling cancellation of war contracts in such a manner as to insure, so far as possible, the industrial stabidlity of the country. We might set up the machinery to get this information ourselves, but we already have, in the United States Employment Service and the community labor boards, a machine which can be used to secure this information."

Edwin F. Gay, director of the central bureau of planning and statistics of the War Industries Board, wrote Secretary of Labor Wilson, on behalf of the War Industries Board, that the value of the records to be made by the community labor boards "will be so great that I am sure every loyal employer will gladly cooperate with you in making them available."

"The War Department has asked the War Industries Board to cooperate with it in clearing cancellation of contracts, in order to safeguard the industrial situation," he stated. "This concerns labor vitally. Contract cancellations may create a considerable amount of unemployment. The situation must be closely watched. We should therefore have up-to-date information on the condition of the labor market in the centers where contracts are to be cancelled. The records of the community labor boards will be constant barometer of the condition of the labor market in all parts of the country."

BERNARD BARUCH COMMENTS ON RECONSTRUCTION PROBLEMS

Chairman Baruch of the War Industries Board has expressed his ideas with regard to certain reconstruction matters, in substance as follows:

Need for a permanent government organization to project measures of conservation and standardization in connection with American industry are obvious.

An agreement has been reached by the various war-making branches of the Government under which all cancellations of war contracts are to be promptly reported to the War Industries Board in order that materials, labor and facilities may be diverted in orderly fashion to the civilian needs. The Board has lifted the ban heretofore imposed on industrial and trade exhibits, such as automobile shows, furniture exhibits, etc.

Section chiefs when, in their judgment, the necessity for their presence here no longer exists, should communicate with me, permitting me to pass on the question as to whether there is continued need for them. There are in the organization of the War Industries Board, exclusive of persons attached to the regional offices and of the members of the Council of National Defense used by the Board as field agents, just 251 of the so-called "dollar-a-year men." To the energy and devotion of these men was due the fact that in no single instance has the War Industries Board failed to come through in schedule time with the requirements for the war program sought for through this Board.

Discussing the matter of conservation and standardization an opportunity exists for the country to make of a matter of necessity a matter of advantage. The various measures undertaken, have been projected and carried through under the stress of the war program—each measure taken up with the individual industry involved, and no attempt made to establish a general policy. The results achieved even in that way justified the suggestion that the whole subject should be transferred to one of the permanent agencies of the government. Properly conceived, a policy of industrial conservation and standardization in time of peace would make for a saving in materials, money and labor, and a consequent increase in productive capacities. Standardization of types and styles in various classes of commodities would make for cheaper costs of production and, resulting therefrom, lower prices to the consuming public. The possibilities from such economics constitute one of the great lessons learned from the war.

The copper men, before the United States entered the war and at the time when the Government was just beginning its military expansion in face of the approaching danger, voluntarily reduced their price on copper to 16 2-3 cents a pound. The demand for copper in the future will be heavy. Between 75 and 85 per cent of the copper production was in the hands of the American industry. With the refining facilities included, the proportion controlled by the American producers is nearer 90 per cent.

In connection with America's war system of economic control, an editorial published in the Frankfurter Zeitung, not long before Germany laid down her arms, lamented the fact that Germany had not adopted the far-sighted methods of the United States to check abnormal rises in the prices for raw materials needed in the war program. Opposed at first to the price-fixing regulations of the Government, the industrial leaders of America had themselves come to appreciate the wisdom of the President in insisting upon a check on the prices for the basic materials where scarcity stimulated the tendency towards extraordinarily high levels. Had a different policy been pursued, the steel and iron industry, for example, would be facing a return to peace conditions with the price for pig-iron boosted up to $150 a ton or more and other items of their production similarly scaled. It is in appreciation of the value of a restraining influence, that the steel industry and others are asking that government control be extended over the period of transition from a war to a peace basis.

The "spirit of service," which, possessed to an unvarying degree by American industry in the period of the war, made the war industries organization of America greater than that of any other country. Each industry considered itself to be fighting Germany. A similar spirit will see the country safely through the period of transition. On the other hand the extent to which industry is to be able quickly to take up the reconstruction demands is dependent to a very great degree on the ability to get ships. Without ships the War Industries Board would in great measure be powerless. The question remains to be decided as to what branch of the government will handle the matter of allocating tonnage. The War Trade Board and the Shipping Board, have the matter under consideration.

Available for the agencies that will decide these problems is the vast reservoir of live statistics, accumulated from all departments and all sources of information, and compiled in orderly and accessible manner under the auspices of the statistical branch of the War Industries Board. There need be on that account no groping in the dark, for the statistics are within a week of actual timeliness.

With regard to the steel situation, the steel manufacturers are anxious that some means be devised whereby the Railroad Administration may be empowered to place orders for cars, rails and other equipment. This they desire in preference to the system existing whereby even though the Director General of Railroads must pass on all orders for such equipment, the say as to whether the orders shall be placed at all is one for the individual roads to decide. At present it is up to the railroads to come forward and place their orders.

Concerning the labor situation, there is reason for the utmost confidence that it will be adjusted without difficulty and without loss to the workers. Labor should continue to be well paid. Out of the better understanding existing between capital and labor as a result of the war will come a higher participation by labor in the fruits of its toil.

MANNING MODIFIES CERTAIN RESTRICTIONS ON EXPLOSIVES

An important step toward a return to pre-war conditions in certain industries was taken Nov. 14 by Van H. Manning, Director of the Bureau of Mines of the Department of the Interior, in modifying the restrictions recently placed on the manufacture and sale of fireworks and of chemicals used in the manufacture of explosives, and on the use of platinum, iridium, and palladium in the manufacture of jewelry and for dental and other non-military purposes. Under the order as modified, licenses will no longer be required in connection with the handling of fireworks or the precious metals named. Many of the numerous chemical elements entering into the manufacture of explosives are used constantly for other commercial purposes, and under the new order no restrictions will obtain on the handling of these chemicals when not used in the manufacture of explosives. Licenses are still required for the handling of all such ingredients when intended to be used in explosives manufacture, however.

The explosives regulation act was passed by Congress in October, 1917, with the aim of putting a stop to the numerous incendiary explosions and fires occurring at war munitions plants and other industrial establishments. Under its terms, no one might sell, store or use explosives or ingredients entering into their manufacture without first obtaining a license from the Director of the Bureau of Mines.

The restrictions with regard to platinum, iridium and palladium were added some months later as a means of conserving the nation's limited supplies of these metals, which were essential to the manufacture of explosives and for other war needs, but which were being extensively used in the manufacture of jewelry and for other non-essential purposes

WORKER MOST EFFECTIVE SINGLE FACTOR IN MINING

By James B. Neale

Director of Production, U. S. Fuel Administration

During the past twenty years the coal mining industry in America has made tremendous strides along lines of greater mechanical efficiency. The engineers of the coal companies and of the companies manufacturing mining machinery have almost performed miracles. The operators have been quick to accept new devices and have been generous with expenditures for mechanical and physical improvements. They have, however, for the most part, been sluggish and indifferent as to ways and means of bettering the living conditions of the workers. The worker is after all the most effective single factor in mining and it is hard to see the wisdom of great expenditures of time, money and ability along the mechanical and physical lines and the almost total neglect of the employe. Very many cases could be mentioned where the operator has spared nothing in his effort to create a perfect operating condition and at the same time has paid little or no heed to the care of his men. Should not the operators start right now to do everything within reason to better the circumstances under which the employes live? Working and housing conditions, schools, churches, amusements, and stimulations of thoughts and ideals along proper lines should be a matter of more moment to the operator than mechanical and physical developments which have already been over-emphasized as compared with those elements which go towards making the lives of the mine workers better and happier. The employers and the employes truly have a common interest, but this fact has been lost. Instead of sympathy and cooperation we all too frequently find suspicion and retaliation. Charges and counter-charges are every day matters and while such a situation exists, efficiency cannot flourish. It is repeatedly said that the great problem confronting the coal mining industry today is the labor problem. This is true and it can only be solved by persistently fair and considerate treatment both as to working and living conditions and as to all intercourse between employers and employes.

Fuel Instruction for Householders

Personal and individual instruction in the use of bituminous coal will be given householders in the cities of Illinois, Indiana and Michigan through instruction stations soon to be opened by the fuel administrators of those states with the approval of the United States Fuel Administration.

RECONSTRUCTION GIVES RESEARCH NEW IMPETUS

By Van H. Manning

Director, Bureau of Mines

Now that our armies are being demobilized and vast industrial plants erected to meet the needs of war must be closed or so changed that they can manufacture other products, the problems of readjustment become of urgent importance. The collapse of autocracy came so suddenly, with our war-time activities rapidly increasing, that some time must elapse before the industrial energy of the country can be directed into new channels. Hence, it is hardly practicable to outline now any plan or scheme of readjustment that shall be nation-wide in its scope: and even a detailed scheme for a single great industry, such as mining, would necessarily be subject to revision.

Yet if detailed plans for the future would be premature at this time, there is every reason for our bearing in mind the teachings of the last two years and of applying them to the problems before us.

In the mineral industry the need of constant research to increase efficiency in production and utilization, to promote health and safety, and to eliminate needless waste will increase rather than diminish with mines, mills, and smelters meeting the needs of peace.

In coal mining, in metal mining, in the treatment of minerals and the smelting of ores, there is problem after problem that demands the best skill of the scientist and engineer, and the cordial cooperation of the operator, the superintendent, and the workman. As an illustration I may cite steel manufacture. Great quantities of steel, steel good enough for many purposes, are made by rule-of-thumb methods. But when the Government called for certain special steels, steels that would meet definite specifications, plant after plant found that rule-of-thumb methods were utterly unreliable for the manufacture of products of the desire grade. The demand for some of these special steels may pass with the ending of the war, but it is certain that steel manufacturers will employ more chemists, and will welcome the scientific investigation of metallurgical problems.

Likewise in the utilization of mineral fuels, coal, petroleum and its products, and natural gas, inability to obtain former supplies high prices, and the enforced care to prevent loss have demonstrated at thousands of power plants the wastefulness of rule-of-thumb practice and the great savings that can be effected by approved methods of firing and of controlling combustion. The need for economy will continue. The interest changes on the national debt will compel higher rates of taxation than before the war, wages will be higher, and the price of many commodities may never fall to the pre-war level. In order to meet the demands of the future, we must discard many of the methods of the past. Scientific and technical research has become a national duty.

The war has proved the worth of the scientist and the engineer. It has shown on a tremendous scale how the hitherto unregarded work of a chemist or physicist, when applied through engineering skill, can decide battles and campaigns, and direct the course civilization. In short, the war has demonstrated in thousands of ways the need of scientific and technical investigation in every branch of industry. Methods that were tolerated before the war and had to be used during the war will not survive in competition with those based on detailed research and exact knowledge. Similarly there is going to be greater need than ever for the elimination of waste, not only waste of resources, of crude materials, and of finished products, but waste of human life and human energy. And if any one thing is more certain than another it is that the Government of every civilized country will encourage scientific investigation and will seek to increase efficiency and safety in industries.

COAL LOADING THIS YEAR GREATLY EXCEEDS 1917 SHOWING

A report from the Car Service Section of the Railroad Administration on the quantity of coal of all kinds loaded by roads for week ended Nov. 2, 1918, as compared with the same period of 1917, shows:

	1918	1917
Total cars Bituminous	187,043	187,299
Total cars Anthracite	29,223	31,115
Total cars Lignite..........	3,526	4,133
Grand total cars all coal..	219,792	222,547

A summary of reports for week ended Nov. 9, 1918, as compared with the same period of 1917, based on actual reports from most roads, but with the estimated results of some roads, follows:

	1918	1917
Total cars Bituminous	178,535	195,006
Total cars Anthracite	32,525	38,571
Total cars Lignite	3,456	4,639
Grand total cars all coal..	214,516	238,216

The decrease in coal loading has been due to influenza among the miners and railroad workers. Total increase of 1918 up to and including week ending Nov. 9, over the same period in 1917—598,661 cars.

UNITED STATES SHOULD PRODUCE ITS OWN POTASH

By Wm. Wallace Mein

Assistant Secretary of Agriculture

When the world war broke out in 1914, the United States was producing practically no potash and was almost entirely dependent upon Germany for a supply of this commodity. The annual pre-war consumption of potash in this country was approximately 250,000 tons of K_2O.

It is probable that more potash was being used per acre at that time than was actually required, owing to the efficient propaganda of the German Syndicate. The following figures of the pounds of potash consumed by one of the leading fertilizer companies for a series of years ending June 30th, illustrate how the loss of the German supply has reduced the amount of potash available for agricultural purposes in this country:

1914............	15,861,000 Lbs.
1915............	10,174,000 Lbs.
1916............	2,616,000 Lbs.
1917............	2,735,000 Lbs.
1918............	5,838,000 Lbs.
1919 (Estimated)	6,315,000 Lbs.

The 1914 figures represent normal conditions before the war. The recovery during 1918 and 1919 is due to the gradual development of the domestic potash resources. These latter have been developed fairly rapidly during the last two years but, notwithstanding this fact, the estimated production of this country for the year 1918—some sixty thousand tons—will still be only about 25 per cent of the pre-war requirements. All of these figures indicate the radical change in the character of the fertilizer sold to farmers during the last two years.

The main sources from which potash is being produced in the United States at present are the following: The brines of certain lakes in Nebraska and California; the giant kelps of the Pacific Coast; cement dust; blast furance fumes; and alunite. Other potential sources as yet undeveloped are the green sands of New Jersey and the sericite shales of Georgia. These sources, together with the blast furnace fumes and cement dust, are, it is estimated, capable of producing the full requirements of the country.

The development of these domestic sources of potash has been caused by the elimination of the foreign supply and the consequent increase in price from between 75c and $1.00 a unit to between $4.25 and $5.25 a unit. When the world trade is resumed, however, the American potash industry will have to compete with the much cheaper German potash, and the question of meeting this competition is one of the problems of reconstruction.

Several lines of action may be pursued: The domestic potash industry, made possible by war prices, may be allowed to struggle and possibly to collapse without Government assistance; the industry may be protected by restricting imports through a high tariff; or the American Government may adopt some plan for subsidizing the existing industry so as to enable it to meet foreign competition.

If it is desirable that this country be made independent of foreign sources of potash, this new industry, which has arisen out of the war emergency, should receive every assistance consistent with sound economic policy, so that those sources of potash which have a prospect of ultimately competing unassisted in the world markets may be fostered and continue to grow. Among other methods this might be accomplished by allowing potash companies to amortize their capital over a short period or by giving them especially favorable consideration with reference to taxation.

This industrial development must be accompanied by continued proper scientific study of the actual need for potash in raising crops. From this will result the dissemination of authoritative and reliable information among the farmers.

Petroleum Products for Roads

The United States Fuel Administration has cancelled its order of May 13 last, restricting the sale for road purposes of asphalt, road binders, road oil, tar binders and dressings, and announces that shipments of these materials can now be made without special permit and without filing application for road work through local state highway departments or through the United States Highways Council.

The administration also announced that disapprovals previously made were revoked and that pending applications would require no further action.

Arrangements for delivery of road materials may now be made in the same manner as before the issuance of the restrictive order, which was the result of war demands.

The revocation, addressed to oil refineries, state highway departments and highway contractors, follows:

"Due to war demands, on May 13, 1918, an order was issued by the United States Fuel Administration restricting the sale for road purposes of asphalt, road binders, road oil, tar binders or dressings. This order is herewith cancelled and shipments of these materials can now be made without special permit or the necessity of filing application for road work through local state highway departments or the United States Highways Council. Arrangements for delivery of these materials should be made in the same manner as was the case before the restrictive order was necessary.

"Announcement is made that disapprovals previously made are revoked, and pending applications will require no further action."

ROBERT S. BROOKINGS.
Head of the Price-Fixing Committee of the War Industries Board.

OVERSEAS DEMAND FOR GASOLINE INCREASES

The overseas demand for motor transport grade of gasoline has increased rather than diminished since the signing of the armistice, according to the United States Fuel Administration.

The motor transport grade and the two aviation qualities are the chief items in the overseas demands upon American sources of supply. Aviation demands have greatly decreased.

These factors, as well as domestic requirements, will have a considerable bearing on any decision as to whether it is desirable to fix a standard of quality for domestic motor gasoline. The question of a domestic standard has been under consideration for some time.

The Fuel Administration has in hand the results of a very exhaustive investigation of gasoline, which was made in considering the existing specifications for aviation grades. The fixing of a domestic motor standard involves much more than the arbitrary determination of specifications, depending upon the question of ability to supply and the consideration of price of all petroleum products which are directly affected by any alteration of gasoline grades.

POCAHONTAS AND TUG RIVER FIELDS' YIELD REMARKABLE

A remarkable increase in coal production was made in October in the Pocahontas and Tug River districts of West Virginia, according to a telegram to the United States Fuel Administration from the production manager in those districts.

This message pronounced the October production the greatest in the calendar year, the figures being 2,034,242, tons. Of this 1,846,000 tons were shipped, and the remainder, 188,242 tons, were consumed locally. Coal coked amounted to 203,000 tons.

The increase exceeded by 40,000 tons the production in any previous month, and was effected despite the fact that influenza incapacitated about 2,100 men for more than half of the month. The districts were further handicapped by difficulties in transportation, there having been 2,600 cases of influenza in the month among the railroad employes.

For several months 13,000 men have been doing as much or more work than twice that number performed before their ranks were reduced by the draft.

Because of the excellent quality of the coal it is reserved by the Government for the Navy and by-products coke plants.

John P. White Resigns

United States Fuel Administrator Harry A. Garfield has announced his acceptance of the resignation of John P. White from the formal position of joint director of the Bureau of Labor of the U. S. Fuel Administration. Mr. White will still be available for consultation, but was relieved of official connection at his request because of the necessities of his personal affairs. He was president of the United Mine Workers of America, resigning this position to take that of labor adviser to the Fuel Administrator. The resignation was effective Nov. 30.

In his letter to Mr. Garfield Mr. White pointed out that but few labor disputes remain to be adjusted.

"I believe I voice the sentiment of the officials of the miners' union when I state they desire to continue their affiliation with the Fuel Administration and co-operate with it to the fullest extent until peace is promulgated," he wrote.

In his acceptance, Mr. Garfield pronounced Mr. White's services "of inestimable value." The letter continued:

"It gives me pleasure to convey to you also the appreciation of the President, expressed to me when on several occasions I have told him of your work as a member of the Fuel Administration."

MAXIMUM PRODUCTION OF GOLD A WORLD NECESSITY

By John Clausen

Vice-President Crocker National Bank, San Francisco

The disproportionate holding of gold among world nations attracts attention to the study of the part that the yellow metal plays or in future is to play in international affairs, and the question naturally arises whether the production of gold is keeping pace with the world's expansion of credit.

The vast obligations piled up by the nations at war; the huge issues of paper currency; the refunding of debts and resumption of specie payments when peace comes,—are among the most urgent and difficult problems with which the world will be confronted. The thought, however, that Europe may possibly repudiate part of her war debts is obviously superficial. Finance has become an international rather than a national question, and the monetary history of any one country tends to become more and more merged in the monetary history of the whole civilized world. International credit is firmly established on a gold basis, and unless the flow of that precious metal is not too strong in any one direction, no country has any interest in upsetting the present standard. If the world's credit, therefore, is to be carried on with gold as a standard, every ounce that can possibly be produced will be required. It is very apparent that with a fixed value of that metal and the rapidly increasing cost of material, labor and transportation, the gold industry, as now developed, is seriously affected and it would seem inevitable that unless some form of Government relief is given to the producing mines, many of them will be compelled to discontinue operations.

To check the natural extension of the gold industry or tamper with the standard of international payment would be an absolutely futile means of handling the situation. It would seem that universal gold standardism can be the more readily maintained if gold be withdrawn from circulation, and instead held as a national reserve to support the credit structure of nations. Under such a plan all mines would come under some sort of government supervision to insure the delivery of an appreciable portion of their output—the percentum to be gauged periodically on a sliding index scale—and paid for at the standard price of $20.67 for the fine ounce.

The world's consumption of gold in manufactures and arts is large and rapidly increasing, and that trade on the other hand—based upon a commercial value in keeping with the open market demand—could well bear a tax over and above the standard price and absorb the remaining output from the mines as an offset to the higher cost of labor and materials.

For example:—

The X. Mine produces 100,000 fine ounces.	
The Government would exact 60,000 ounces at $20.67 per ounce..	$1,240,200.00
Leaving for Manufactures and Arts 40,000 ounces at say $45.00 per ounce	1,800,000.00
Resulting in a net sale of output (average price of $30.40 per fine ounce)	$3,040,200.00

The United States stands in the unique position of possessing more gold than any one nation has ever before claimed, but if we are to perform the part that destiny seems to have laid out for us as the world's banker, it will without doubt be necessary to further increase our holdings of gold, and to this end encourage its production to the fullest extent.

CERTAIN FUEL ADMINISTRATION ACTIVITIES TO BE CONTINUED

The United States Fuel Administration, which will be terminated automatically upon proclamation of peace, will pursue its course with that end in view, relinquishing its various activities as they become unnecessary under armistice conditions, and continuing to function where its services still are required, it was announced in response to inquiries.

Reports of immediate and wholesale dissolution were said to be without fundation. Various subdivisions already are in process of winding up their duties. The Mine Track committee, and some other sections, including several from the Oil division, have been released at their request from further service, because the work which they undertook to do has been done.

Whatever machinery is necessary to the continuation of the full discharge of the duties of the administration will be retained until these duties are discharged or until the administration is relieved of them, and continuation of the larger activities of the administration through the winter was said to be the present prospect. The vigorous and careful supervision of anthracite coal was cited as an instance of the kind of work which still must be done.

The proper administration of the zoning system, under which millions of car miles of haulage were saved and the supply of coal was correspondingly increased, was mentioned as another of the sort of duties which the administration cannot abandon forthwith, and which it will carry forward.

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COPPER PRICE AND WAGE SCALE CONTINUED UNTIL JANUARY 1

Bernard M. Baruch, chairman of the War Industries Board, conferred Nov. 15 with a committee of the copper industry of America. The meeting was attended by Daniel Guggenheim, of the American Smelting and Refining Co.; C. F. Kelley, of the Anaconda Co.; Daniel C. Jackling, of the Utah Copper Co., and R. L. Agassiz, of the Calumet and Heckla Co.

This is the second meeting of the kind to be held since the armistice was declared, the first having been the steel meeting which took place Nov. 12.

General industrial conditions, to which the use of copper is intimately related, were reviewed, the discussion being particularly directed to the immediate situation that America and the rest of the world is facing. The same spirit of cooperation that characterized the copper producers throughout the war in the supply of the metal to America and the Allies was present.

The meeting brought out the following points, which are to remain effective until January 1 and then be subject to renewal or revision as already agreed upon:

(a) The present rate of production is to be maintained in the mines, smelters, and refineries, continuous employment being thus insured during the first period of the transition from a war to a peace basis;

(b) The present level of prices of the metal and the existing wage scale of labor are to be preserved;

(c) The War Industries Board, or such other governmental agency as may be designated, is to continue regulation of prices and allocation of the material.

One of the allied governments within the last twenty-four hours has requested information on delivery of 200,000 tons of the commodity, which was accepted as a sign that the European demand would not only be large but immediate. Another point given consideration was the prospective requirements for civilian consumption, due to the curtailment of the productivity of many American industries for the last eighteen months because of the needs of the war program, which have created a demand that should prove a factor in stabilizing conditions generally.

The civilian demands in Europe and elsewhere, held in check for more than four years, would work to the same end, it was thought, since America produces approximately 75 per cent of the world's copper supply. The reconstruction work in the belligerent countries was another point of discussion as well as the demand that Germany and her former allies will have to satisfy when she is again rehabilitated and has re-established her commercial relations with the rest of the world.

Anthracite Production Cut 1,680,000 Tons

That the production of anthracite coal had decreased 1,500,000 gross tons (1,680,000 net tons) because of the epidemic of influenza and the two celebrations of the signing of the armistice, was announced today by the United States Fuel Administration.

The share that influenza had in the total falling off was estimated at 1,000,000 gross tons, while the advance and the official celebration of the end of hostilities caused a further reduction of 500,000 gross tons in production of hard coal.

The seriousness of the situation as regards the retarded production of anthracite was discussed from all angles at a conference Monday and Tuesday in Philadelphia.

IMPORTANCE OF SAFETY IN STEEL INDUSTRY SHOWN

A bulletin (No. 234) of the U. S. Bureau of Labor Statistics, entitled "The Safety Movement in the Iron and Steel Industry, 1907 to 1917," brings out forcibly the immense practical importance of the safety movement in one of the most important American industries. It shows that, measured in terms of human life and limb, the efforts at accident prevention during the past ten years have reduced death and injury in that industry by no less than two-thirds. In 1907, out of every thousand men employed, two hundred and forty-two were killed or injured during the year in 1917; the proportion had been reduced to eighty-one per thousand.

The reduction in the later years would no doubt have been more rapid had it not been for the advent of the world war with its enormous dislocation to all orderly processes. Its first effect upon American industry generally was one of great depression. Employment in the iron and steel industry declined rapidly, reaching its ebb about the middle of 1915. Then began an upward movement in activity and employment which was entirely without precedent. The demand for labor led to the introduction of entirely new labor elements and to a movement of labor from place to place such as had never before occurred.

This placed an enormous strain upon accident prevention efforts. On the whole, it may be said that the test was well met. But in some branches of the industry there was a condition bordering on demoralization. Accident rates went up rapidly, but in very few of the better organized plants did the new rates rise as high as they had been at the next preceding period of industrial activity, and by the middle or latter part of 1916 the situation almost everywhere was well in hand.

The safety movement in the iron and steel industry may thus be said to have passed with credit its most serious test. But there must be no resting on the oars. Accident rates are still too high. If necessary, the safety movement must revise its foundation principles in order to meet the new demand. This report, indeed, directly broaches the question, "Can serious industrial accidents be eliminated," and seeks to prove that such a goal is possible of attainment.

The argument is briefly this: The statement that accidents cannot be entirely prevented rests primarily upon the conviction that accident occurrence is due in the main to the human factor, to the "carelessness" of individuals. Since a perfect humanity is not yet in sight it is urged that results which demand perfection cannot be expected. A careful analysis of a large group of fatal and serious accidents indicates, however, that such accidents are due primarily to fundamental engineering or structural defects in which the workman has no part. Numerous illustrations are cited. A man in violation of orders walks under a swinging crane which breaks and he is killed. His "carelessness" is blamed, but the real cause was a faulty chain. An oiler is caught on a smooth shaft by some loose portion of his clothing. He is blamed because he had been forbidden to wear such clothing. But it is possible to equip all shafts with bearings which render approach while the machinery is in motion wholly unnecessary. In general it is argued that structures so strong, so well designed, their material so well selected that they cannot fail, except so rarely that failure is negligible, are possible at a price. It is possible to conceive industry conducted under conditions so safe that the occurrence of severe injury will excite the same surprise as its absence now does.

The report analyses a large body of accidents in the iron and steel industry with the purpose of finding just why and how accidents occur and how they may be prevented. Of particular interest and importance in this connection is the emphasis placed upon inexperience as a factor in accident occurrence. That "green" men are particularly subject to accidents has been recognized and in a number of plants special effort has been made to train and caution them. But the full effect of this factor is rarely recognized. A table is presented in the report, showing for a large group of workers, the frequency of accidents according to the length of experience. For those who had been employed for six months or less the accident frequency rate was 111 per thousand workers. This dropped to 87 cases for those with from one to three years' experience, and to 8.5 cases per thousand workers for those with ten to fifteen years' experience.

This fact probably explains the high accident rate in times of business activity, such as occurred in the iron and steel industry as the result of the great demands of the war. Then it not only became necessary to employ large numbers of inexperienced men, but the shifting of men from plant to plant placed such men constantly in new surroundings with which they were not familiar, and where, for a time at least, they were in somewhat the same position as the inexperienced man.

District Coal to Be "Put In" at 75 Cents

All retail coal dealers in the District of Columbia have been notified in an order issued by Frank G. Jones, federal fuel director for the District, that no person shall charge more than seventy-five cents a ton for storing coal in householders' bins.

DANGER OF PATERNALISM IN POST-WAR ADJUSTMENTS

By Otto H. Kahn

The attitude of America's thinking men—the men upon whom must fall the burden of working out the future of the nation, is largely reflected and well expressed by Mr. Otto H. Kahn in his recent utterances before the American Bankers' Association and upon other more recent occasions. Mr. Kahn is a quiet, studious and masterful financier, little given to public expressions or prophecies. His opinions are therefore not often given to the public. Being asked to write for publication in this issue of The Mining Congress Journal, Mr. Kahn replied as follows:

"Next to beating the Hun, nothing is more important than to beat those who would smuggle un-American or anti-American materials into the magnificent and time-tested structure which is America. Nothing is more vital to the future of our country than to maintain inviolate the tried and tested principles upon which our institutions are based—wisely and fairly and progressively adjusting their application to the needs and the spirit of the day and to the demands of enlightened social justice."

Although Mr. Kahn stated that he had made it an invariable rule not to write for individual publications or magazines, he extended the courtesy of permission to reprint portions of his Chicago address, and we take pleasure in quoting from his utterances before one of the notable gatherings of the year—the address itself being the essence of the principles upon which a truly democratic and permanent America must be established.

After paying a most extraordinary compliment to the constructive and fighting prowess of the American Army—from private to commander—in France, Mr. Kahn expressed the belief that the quick transition of the American from a follower of peaceful pursuits to a most remarkable executive-warrior was the national training along individualistic lines, free from the domination of bureaucracy and direction of governmental dictators. Mr. Kahn reached his conclusions after encountering the armies—rank and file—of the Allies, both in camp, in governmental centers and in battle line.

He gives full credit to the German idea of bureaucracy and paternalism as the most efficient and complete the world has ever known and adds that it was this efficient paternalism which, coupled with militarism, brought the inevitable disaster to the whole world. It was a part of this German plan to assume the role of conciliator, protector and cooperator, both with the great financial combinations and with labor, cajoling and making a contented nation of chain bearers through apparently progressive and fair-seeming social welfare legislation. In France, he said, the system had been tested sufficiently long to weary the people of it, and the after-the-war tendency of the French will be toward individualism and personal initiative.

"The militant preachers of the New Day to come after the war have the enviable and pursuasive cocksureness which goes with lack of responsibility and of practical experience," said Mr. Kahn. "Being vociferous and plausible they are undoubtedly making converts . . . of a good many who honestly seek—as every right-minded man should—to bring about a better and more justly ordained world. They have not been without producing a certain effect even in high places. Nothing is easier to start, nothing moves faster when once started, than economic fallacies. . . . Nothing is harder than for sober unvarnished truth to catch up with these fallacies. We hear much about the war after the war—meaning the expected economic discord between the nations, but there is indeed one 'war after the war,' the lines of which are now being drawn. The opposing forces are, on the one side, the motley army ranging from the American variety of destructive Bolsheviks in various gradations to self-seeking demagogues, well meaning utopianists, iconoclast theorists intolerant and impetuous young writers, strong in the assured consciousness of their mental and moral superiority, and, alas! none too rarely, college professors and other teachers generally underpaid, frequently overworked . . . inclined to take the world as a theoretical proposition rather than a stubborn fact. Confronting that army, on the other side, stand those who believe that the accumulated wisdom of centuries of human experience is wisdom still and who see in individualism, ordered, enlightened, progressive, sympathetic and adjusted to changing needs . . . the soundest and most effective instrument for the happiness and advancement of humanity. . . . The individualism to which I adhere spells neither reaction nor greed, selfishness, class feeling or callousness. . . . In common with all right-minded and fair-thinking men, be they employers or employes, we are ready and glad to join in every sincere effort, consistent with sane recognition of the realities of things, to make life more worth living to the rank and file of humankind. . . . We will resolutely oppose those who in their impatient grasping for unattainable perfection would make of liberty a raging and destructive torrent instead of a majestic and fertilizing stream. . . . I have complete confidence in the sober common sense of the American people. . . . They will not, I feel assured, permit Americanism to be adulterated by a spirit or by methods having kinship to either world-destructive Prussianism or self-destructive Russianism. They will not, I am certain, cast aside knowingly the theories and principles of institutions which are the envy and admiration of the world, in exchange for a regime of bureaucracy, paternalism, socialism or bolshevism.

"The menace which I see is not in the deliberate will of the people, but in the fact that under the emotional stress of war, under the patriotic impulse of the time, under the actual or fancied necessity of the war situation, tendencies are tolerated and modes of thought and action permitted to gain a footing unopposed, which are apt to create very serious problems upon the return of normal conditions. . . . I do not fail to recognize, but on the contrary, I welcome unreservedly the prospect that in the times which will follow the profound upheaval of the war, the standard by which men will be judged and rewarded will be, more strictly, exactingly and far-reaching than heretofore, that of work done, duty performed, service rendered. The world will have no place for idlers and social slackers. Rank will reside not in birth or wealth—neither, I trust, will it reside in an office holding caste—but in useful achievement. And the less obstructive and stubborn, the more broad-minded, cooperative and disinterested those who preeminently prospered under the old conditions will prove themselves in meeting the spirit of the new day and the reforms which it will justly call for, the better it will be both for them and for the community at large."

After discussing Socialism, its German origin and methods, Mr. Kahn stated that while it would be futile to shut our eyes to the fact that not a few of the dangerous and insidious fallacies of Socialism have taken root amongst sections of the American people, which are far from subscribing to its program as a whole, yet there is no immediate danger from the issues raised. "The menace, however, of bureaucratism and semi-socialistic paternalism with their insidious effect upon the very fibre and marrow of the race, confronts us *now*, and it is none too early for business men to take their stand against their perpetuation in time of peace. It may be stated as an axiom that while bureaucracy and efficiency may go together under an autocratic regime, it is impossible in the very nature of things for bureaucracy to go together with efficiency in a democracy. Nor, indeed, can paternalism and liberty exist side by side. . . . Far be it from me to wish to reflect upon the ability, the character and the motives of our public servants in general, but surely, no candid estimate would claim, that acquaintance with, and experience in, handling large business affairs—let alone international business affairs—are prevalent in normal times among those in executive, legislative and administrative positions in our country. . . . Has the state anywhere or at any time produced results comparable with the best of those produced by private effort, taking into account both efficiency and economy? Bureaucracy is either wasteful, stagnant, and inefficient or, when it is efficient, as in Germany, ruthless in its methods, obnoxious in its spirit and morally poisonous in its effect. . . . As bearing upon the question of transferring business functions from private control to government control, I need hardly enter into the subject of the vastly increased cost which such a transfer would involve, because governmental extravagance and costliness of method have become proverbial.

"The picture of bureaucratic paternalism fastening its shackles upon a nation which went to war to preserve liberty, is not a fanciful one. Through the accident of war, paternalism at present rules supreme. Officialdom is in possession. It is entrenched in power beyond what it dared to hope for in its fondest dreams. And power is sweet. Officialdom and those who feed at its table will not easily give it up. Bureaucracy has, and will have an array of plausible arguments to support its plea. Paternalism, under a number of names and disguises, will have the support of the vast army of those who live and hope to live on its huge patronage. . . . The movement will be countenanced by many who do not sufficiently appreciate, in the face of the lessons of all history, ancient and modern, that the only free government which ever has lasted, or ever can last, was and is the government which gives the broadest scope to the individual, limited only by equally broad but wisely conceived regard for the public welfare. It would be bitter irony of fate if, whilst democracy triumphed on the bloody fields of war over that arch representative of the paternalistic system and spirit, Germany, our own government and social conception and practices were to be infected with the Prussian poison of paternalism and bureaucracy."

In a more recent utterance, Mr. Kahn said, in discussing the necessity for careful study of the readjustment problems: "Shall the reconstruction period be under the auspices of semi-socialistic and bureaucratic paternalism, or shall we preserve, for meeting the huge task which confronts the world, the safe and tested instrument of individual effort and enterprise? On the answer depends largely whether the victory will be genuinely fruitful for the happiness and well-being of the world, or whether the course will lead through turmoil and disillusionment to ultimate reaction."

UTAH CHAPTER BUSY WITH WAR PRODUCTION

Activities of the Utah Chapter, American Mining Congress, during 1918 were devoted chiefly to assisting the industry in Utah to meet the unusual conditions and requirements created by the war.

The year witnessed little new development, due to the extremely high costs that prevailed and, in greater measure, to the fact that all energies and all available man power were devoted to production from properties already in existence. Except in the case of the "war minerals," practically no prospecting was done in the state.

Although complete figures will not be available until after the close of the year, indications are that the total output will show a decrease from the 1917 figures. This condition is the result of insufficient labor and is also due in part to suspension of production by some properties which were unable to continue under the high costs. In general, however, production was kept fully up to the Government's requirements and Utah's producers are therefore able to congratulate themselves on having discharged their patriotic duty. This duty brought its penalties in the form of reduced earnings and properties put in rather bad shape in some instances through necessary curtailment of development work.

The year passed with practically no labor disturbance in the State.

The Utah Chapter cooperated with the government agencies in every possible way. One form of this cooperation was the appointment of a Minerals Committee by the Utah State Council of Defense. This committee, consisting of George H. Dern, Victor C. Heikes, Ernest Gayford, E. R. Zalinski and A. G. Mackenzie, established its office in the offices of the chapter and made free determinations of several hundred specimens submitted in connection with the Government's campaign to stimulate domestic production of war minerals.

The chapter was represented at various conferences of producers in the West and at Washington during the year, which proved to be the busiest period of the chapter's career.

An oil section of the chapter was created early in the year and has devoted its energies toward the development of that branch of the industry in the State.

First Fuel Curtailment Revisions

The first revision of curtailments upon the use of coal pursuant to the halting of the nation's war program was announced November 13 by the United States Fuel Administration.

RECONSTRUCTION AND POST-WAR WORK OF THE BUREAU OF MINES AS REGARDS METAL MINING

By J. E. Spurr

The activities of the Bureau of Mines expanded greatly under the stimulus of the war and the necessity of adequate investigation and guidance of the metal mining industry. Up until the war period the Bureau of Mines, originally planned to be a Department of Mines, had not attempted to occupy the position in metal mining which its name and position indicated. This was due to the fact that the Bureau as finally organized was an off-shoot of the Geological Survey, and grew and expanded irregularly, with the assumption, from time to time, of special technological problems and fields of investigation, but without any broad assumption of covering the mining field. The work in coal mining, to be sure, was developed considerably, this work having grown out of technological studies on the utilization of coal which was the first work undertaken by the new organization, but the field of metal mining was barely touched. The war necessity for concentration on problems of metal supply in the United States led to framing by the War Minerals Committee on which the Bureau of Mines and Geological Survey, American Institute of Mining Engineers, and the State Geologists were represented, of a Mineral Act to create a Mineral Administration, which met with great delay, and was only recently passed by Congress. In the meantime, however, Congress passed a special emergency appropriation for the Bureau of Mines for war minerals investigations, appropriating $150,000 for that purpose, and under this appropriation extensive work on the problems of metal mining was developed. When finally the Mineral Act passed, therefore, and it was decided by the President and the Chairman of the War Industries Board that the Interior Department should administer this Act, the Bureau was prepared to undertake the responsibilities which it had, as a matter of fact, to a certain extent, already assumed by its close cooperation with the War Industries Board.

The fact that this Mineral Act became a law on what appears to be the eve of a cessation of active hostilities in the world war brings about the question of the work of the Bureau during the reconstruction period and in the after-war period. It may be assumed that with the Bureau, as with other Government institutions, that such re-organization and innovations as have been brought about by the stimulus of the war and which have proved under test to be of permanent value, will not be allowed to disappear, and therefore it is certain that the activities of the Bureau from now on will be broader than in the past, and that it will more and more fulfill its function of covering the whole field of mining, and possibly naturally grow into the importance where it will become advisable to recognize it as a Department of Mines.

Many of the immediate problems which have to be considered by the Bureau of Mines, under the Mineral Act, are vexatious and ephemeral. The chromite, manganese, and pyrite situations, for example, represent an inheritance of trouble caused by the insufficient coordination between the different branches of the Government in dealing with these problems during the war and would have been avoided by an intelligent, strong central control of these industries at an earlier date, such as the control which has now been granted by Congress to the President. During the active period of the war, however, the Shipping Board, War Trade Board, War Industries Board and the State Department all had a hand in these problems without any one having the power to decide and coordinate. It will be the duty of the Mineral Administrator to adjust these complications as best may be done at this late date, but the problems will be short-lived and will merge into the usual condition of the mining industry, over which the Government will exert very little control, as it did before the war. It is not to be expected that the general post-war conditions of the mining industry will be essentially different from those before the war. The mining industry in general will have to stand on its own feet and have to compete with the mining industry of other countries, if necessary, since it is not to the advantage of the general national warfare and economy to protect and subsidize certain interests to the disadvantage of greater and more general interests.

Some things, however, will be more permanent as the result of the work of the Mineral Administrator, and notably the work initiated on the potash problem at the special direct request of the President and the Chairman of the War Industries Board. The adjustments and encouragement proposed in respect to potash, under the Mineral Act, will be as necessary during the reconstruction period and in peace time as during the war, and I have made this the subject of a special note and a separate memorandum. Potash means food and it is as essential that the country becomes a permanent producer of its own potash as that it should permanently produce its own wheat, provided that the domestic production can be made at a price which does not entail any serious burden upon the farmer or raise the general cost of living.

Outside of such permanent results as the potash development which may come from the Mineral Administration, the other functions under this Act will pass away swiftly during the reconstruction period. The expanded field of the Bureau as regards the investigation and assistance of the domestic mining industry will still, however, remain, and problems of assisting the mining, treatment and marketing of ores in every respect will doubtless continue. In general the organization of the Federal Bureau or Department covering mining will perhaps correspond with the practical organization worked out and proved practicable by the great mining organizations and will cover the same fields, including problems of mining, milling, smelting, labor, accounting, management, transportation, marketing and power. The Bureau has already started a file of reports and information on mining properties which it is aimed to make as complete as possible and to imitate from a federal standpoint the files of information on properties accumulated in the offices of the great mining and development companies.

One of the special problems which it may be advisable to consider further is the adjustment of the long-standing difficulties between the miner and the custom smelter or purchaser. It is beyond question that most of these difficulties are due to misunderstanding, and it would see that the Bureau of Mines could fulfill a very great service in entering into this field, providing such a service would be welcomed by both the mining and smelting industries. The establishment of standard practices in sampling and the supervision and advice concerning these practices by competent Bureau representative will result in establishing a system which would have the confidence of both parties and should be as free from question as the returns from the mint. If carried out conservatively this service should stimulate mining and be a great help not only to the miner but to the custom smelter and other purchasers.

Under the stimulus of war work the field engineers of the Bureau went directly into close contact with the miners and gave personal assistance wherever possible. This was a departure from former government bureau methods, where it has rather been the tradition to make investigations and keep the conclusions secret until such time as they should be given to the public in the form of printed article or bulletin. This procedure, however, involves months, and sometimes years, of delay and where immediate relief and assistance is needed, can hardly be regarded as practicable in every case. The war work engineers of the Bureau were instructed to advise miners as to methods of mining, milling, marketing, management, and, in fact, to give all the disinterested assistance of which they were capable. The test of this system has been very satisfactory and it is a question whether this work should not be continued, or even expanded, after the war. The work of the Department of Agriculture with its county agents acting in cooperation with the state authorities in furnishing direct advice and assistance to farmers furnishes an entirely analagous case which has been tested and proved successful. If the Bureau should branch out in this direction, the various experiment stations scattered all over the country would be an assistance in and form a part of the new expansion. This work would not interfere with the practice of private consulting engineers, but would probably greatly increase the demand for such engineers on account of the education which it would give to the miners. At the present time, where only one company or group of investors has the funds or intelligence to employ competent engineering advice, there are several who do not have one or the other, or perhaps both, and to such the help of the Bureau, to be afforded only on request, would be of great individual advantage and would increase the efficiency of the mining industry and help enormously toward the conservation and the proper utilization of our natural mineral resources. Such advice or assistance would of course not be intensive, but would involve the guiding and suggesting to the asker of advice as to how he should proceed and to whom he should go for more detailed assistance.

The technical investigations of the bureau would of course not be discontinued, but, on the contrary, would go on with much greater scope and vigor, and publications summarizing results would be issued.

The Bureau of Mines experiment stations have devoted a great deal of time to investigating treatment processes from the commercial and metallurgical standpoint, and have achieved some very valuable results, and this work above merits active continuation.

New District Fuel Representative

The United States Fuel Administration has announced the appointment of R. B. Isner, of Elkins, W. Va., effective December 1, as district representative to succeed D. R. Lawson, of Fairmont, W. Va., who has resigned to enter the coal business.

Mr. Lawson was the first district representative appointed by the United States Fuel Administration, his appointment to the important district concerned having been made in December, 1917. Mr. Isner, his successor, is sales manager of the West Virginia Coal and Coke Company, and he has had many years' experience in handling the coal in that district.

WAR-TIME EXPERIENCE WILL HELP IN RECONSTRUCTION

By Geo. Otis Smith [1]

Director, U. S. Geological Survey

Our war-time adventurers in political economy promise greatest success in those matters that will still demand attention after peace has been attained. Not only the war strength of the nation depends upon the available supply of mineral raw materials, but also the national efficiency while on a peace footing, and many of the principles of governmental control called into action must be expected to have almost equal force under after-war conditions.

Governmental control of industry is too often opposed with the flat statement that private control can be exercised with greater intelligence and with equally high motive. This assertion means that the man directly interested in any branch of industry as the representative of the capital and labor it enlists can be better trusted than any government official representing the people's interest both as consumers and as producers. The practical experience of the man in the business is thus set off against the disinterested "theories" of the public servant. If, indeed, brains as well as high motive are note available for public service, a serious indictment is thus laid against representative government; democracy fails to act intelligently. The present-day experience, however, shows that government control is the more necessary, the larger and the stronger the units of productive industry concerned; and yet such national control can promote the interests of the industry itself—at least as a whole if not in every part.

Industrial independence as a war-time issue is made imperative by the shortage in cargo-carriers. Some citizens most concerned in the foreign trade have shown a willingness against self-interest to cooperate fully with the Government; with others, conservatism and lack of realization of what the shipping program means have resulted in a passive attitude; while it must be added that too often at first the hand of the importer, the ore-buyer, the acid-maker, the steel-maker, or the alloy-maker has been felt in short-sighted opposition to each move made for the development of domestic supplies of manganese, pyrite, chrome, or graphite. This influence not only expresses the natural conservatism of the industry, whose long-tested metallurgical or chemical practices are threatened with change, but with this, or often behind this, there is present even greater concern for well-established trade connections and relations. The entrance of new producers into the market or the development of a substitute supply might endanger informal and secret arrangements whereby production is distributed among the group of buyers. The old policy that involved the "gentlemen's agreement" is not wholly inactive, and indeed fears are expressed that without such intelligent guidance the market might "run away." The public-service nature of "big business" is perhaps most apparent to those whose practical experience may be limited but whose public calling compels them to see as a whole the reactions between all the industrial and commercial components in the great process of winning the raw material and converting it to the use of man.

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[1] Extract from article by Dr. Smith in "After the War," a book which has just come from the presses.

OIL AND GAS INDUSTRY DURING THE PERIOD OF RECONSTRUCTION

By Ralph Arnold

Valuation Expert, Internal Revenue Bureau, Treasury Department

As the oil and gas industry of this country is fundamental to its material being it must keep pace with the world's industrial progress. Excepting for the Mid-Continent, Rocky Mountain and possibly Gulf fields, the oil and gas fields of the United States have reached or passed their apex of production. In general, therefore, progress in the industry will be measured not in an increase in the total production of oil or gas, but in their more conservative use. Internal combustion engines must replace steam engines using oil fuel; power supplied by gasoline must be obtained from the heavier, cheaper distillates; natural gas must be conserved for domestic use and the industries now using it must resort to other fuel; higher percentages of gasoline and the lighter derivities of distillation must be recovered through the use of improved refining methods, and so on.

The oil and gas industry, like many others, will be confronted by a scarcity of new equipment until the steel and iron business is stabilized. The labor question in the oil fields will be a serious one on account of lack of trained men. Greater and greater chances must be taken by the prospector hunting for new fields, as the most likely territory has already been tested.

With the removal of governmental control, the decreased production, increased cost of recovery and increased demand will logically result in higher prices until they reach the point where imports, or oil derived from shale, or artificial substitutes for oil can compete with the natural domestic product. But as offsetting the probable increased profits the industry must be prepared to carry its pro rata burden of taxation which obviously will be great for several years to come.

COOPERATION BETWEEN MEN AND EMPLOYERS NECESSARY

By Bulkeley Wells

Much has already been said and written in regard to the so-called reconstruction period after the war. For the United States this will, I believe, prove to be a period of readjustment rather than reconstruction.

In some industries methods have been immensely speeded up and remarkable efficiency developed; but in metal mining, and notably in the production of gold, resort has been had, of necessity, to methods and practices which can be justified only because they resulted from the efforts of mine operators to produce all that our Government required, from the mining industry, in the active prosecution of the war.

With the return of peace conditions we have much to accomplish in reestablishing order and good practice in our mines and mills and in rebuilding our organizations. Needless to say we shall eagerly welcome the return of our men who have served in this war with such distinguished courage and with such speedy achievement of victory.

Wages and the cost of supplies used in metal mining have risen to levels that cannot be supported by the present and probable future prices of most metals. Our greatest problem will be the adjustment of wages to conform, with other costs, to the sale value of our products. Yet this problem can be equitably solved if employers and employes will deal fairly and frankly with one another, and honestly cooperate to the end that our industries may be so maintained as to give employment to the maximum number of men.

In recognizing, as a final determining factor, the inexorable law of supply and demand, labor need not feel that its rights and earnings are being prejudiced; and capital will simply concede, in this respect, what it has always asserted, when wisely counseled.

Our first efforts, in a cause common to all, must be devoted to reducing the abnormally high cost of living. This will prove the opening wedge for all our other problems.

More Mines Closed for Poor Coal

Because their product was improperly prepared, nineteen coal mines were ordered closed recently in one week by the United States Fuel Administration. This was the largest number of closures ordered in any one week by the Fuel Administration, making a total of 111 mines similarly affected.

The mines just closed are located in Pennsylvania and Alabama. They will remain closed until their managements have satisfied the Fuel Administration of their ability and intention to produce coal up to the required standards.

PAUL ARMITAGE

Member Revenue Legislation Committee of the American Mining Congress

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A Book Worth Having

"International Mining Law," a book by Theo. F. Van Wagenen, has been placed on sale recently. A review of the work by the Mining & Scientific Press is as follows:

"This readable and attractive volume presents the mining laws of the world mainly in an abstracted form, and also treats the subject from a comparative historical standpoint. It is many years since the work has appeared in English covering this field and this is the first work of its kind to appear in the United States. 'Walmesley's Guide to the Mining Laws of the World' (London, 1894) has long been out of print, and Alford's 'Mining Law of the British Empire' (London, 1906) is limited in scope, as its title indicates. There is in this country a pathetic ignorance of foreign mining laws and of the principles underlying mining law in general. The recent widespread agitation for a profound revision of our own mining statutes has revealed remarkably little well-considered thought on the subject. Few possess ideas more inclusive than a demand for the repeal of the extra-lateral and discovery provisions of our existing laws, and no satisfactory workable substitute for these ancient and venerable doctrines has been suggested. Before we tinker with laws that have been the outgrowth of the American miners' own conception of what they should be, we should know at least what other countries have done in similiar legislation.

"The author states in his preface that 'Practically all the raw material in this volume was collected primarily for the purpose of enabling the author to form an intelligent opinion as to whether the American Federal Mining Law was in need of revision, and if so, in what respects." He finds the fundamental principles of the American system of mining law to be sound and, on the whole, to present a workable and democratic system, comparing favorably with those abroad, and, if judged by practical results, to vindicate its existence. He favors ownership of mining claims in fee simple as opposed to the leasing system, and emphasizes the important part the prospector plays in this country, whose activities, he feels, should be still further encouraged. It is regrettable that he did not select a more accurate title for his book. International Mining Law implies one system of mining law common to nations generally. It is extremely doubtful, if the League of Nations should become a reality and the now shattered fragments of international law should be gathered together and placed on a firm and unshakable foundation, whether mining law will receive any consideration whatever as a subject meriting international attention. What the author doubtless intended by the title is, rather, Mining Laws of the Nations, or Mining Laws of the World.

"We note a few inaccuracies of statement, such as, 'unpatented mining claims are not taxable by the State' (the Supreme Court of the United States has held otherwise); the Federal law only 'inferentially requires' discovery, (as to lode-claims the Federal Statute is specific on this point). We cannot always concur in his conclusions, and at times he is inclined to speculate to a degree not warranted by his premises. For example, there is no reliable data to justify his statement that extra-lateral right probably had its root in the laws of the Roman Empire. We also regret that, in a work possessed of so many excellent features, he does not, with rare exception, cite the authorities upon which he bases his statements. In spite of these minor criticisms the work is well worth while. It occupies a place in the literature of mining law that heretofore has not been represented in America, and deserves attentive study by everyone who is interested as mine owner, operator, or mining attorney."

Mine Track Committee Discontinued

The United States Fuel Administration announced Nov. 9 the discontinuance of the practice of receiving applications for permission to install track connections with coal mines.

Such applications now should be made direct to the local railroad officials, as in pre-war times.

THOROUGH INVESTIGATION WILL PRECEDE CONTRACT CANCELLING

By Benedict Crowell
Director of Munitions

The War Department is faced with an intricate problem and great responsibilities. The industries of the country, which have responded whole-heartedly to the call of the Government for increased production and which were going at a rate never before attained, must be diverted from war-time production to their normal occupations in times of peace.

The first and primary consideration in getting back to this normal basis is to make this readjustment with as little inconvenience as possible, and with a continuous employment of labor.

It is also essential that the production of material for war, which means now a waste of material which could be used for civilian population both here and for the purpose of reconstruction in Europe, should be stopped as speedily as is consistent with the primary consideration of labor and the industries.

Instructions have therefore been issued to all bureaus of the War Department, governing the methods of slowing down of production, so that as far as possible there should be a tapering off of war work, giving time for industrial readjustment and for the industry to take up civilian work.

So that manufacturers might as rapidly as possible get into work on civilian needs, at our request the War Industries Board have withdrawn all priority ratings on army work.

No order is being suspended or cancelled by the War Department without consideration of the nature of the work or the locality in which the work is being performed, labor, and the re-employment of labor at such places in other industries, and without conference and consultation with the War Industries Board which has been constantly in touch with the industries of this country, and with the Department of Labor, which is in intimate touch with the conditions of employment in all parts of the United States.

Overtime, holiday and Sunday work has been stopped, and as rapidly as possible and as rapidly as the labor can be used in normal day shifts, night shifts will be discontinued.

It is often the case that in a certain locality where labor is working on a war project, this work may be stopped and the same labor utilized on other work in the same locality.

During the war production has been largely diverted from articles called for in times of peace to war necessities, and civilian needs have been curtailed and non-essentials largely eliminated. With the assistance of the War Industries Board the articles for war necessities are being rapidly curtailed and the industries proportionately freed to work on civilian needs. Industries which have been largely concentrated in certain areas with resultant congestion of transportation, with a great influx of labor in this area, with inadequate facilities for housing, etc., are being taken into consideration in this readjustment.

The two standards which the War Department has set up for itself are that these contract readjustments must be made equitably, in regard to the industry and labor, and promptly, to safeguard the financial elements of the problem.

FUEL ADMINISTRATION VALUES GAS WASTE AT MANY MILLIONS

Natural gas, valued conservatively at $9,000,000, was wasted in a year in a group of Kansas and Missouri cities and towns, according to figures just gathered by the United States Fuel Administration. These figures show wastes varying from 27 to 73 per cent of the gas delivered to the gates of the cities and towns.

To prevent further waste and to determine whether the fault lies with the wholesale or the distributing companies, arrangements have been made to have all wholesale meters in the affected district checked by the division of weights and measures of the Bureau of Standards.

In the entire district affected, in the twelve months from September, 1917, to August, 1918, a grand total of 9,557,143,000 cubic feet of gas was delivered and sales of 5,679,256,000 were reported, showing a loss of 3,977,887,000 cubic feet, or 40.58 per cent.

The cause of this great wastage is laid to poor construction of lines so that the gas leaked out of the pipes.

The figures of the Fuel Administration were obtained from the statistics of the wholesale companies as to the number of cubic feet of gas delivered to gates of the cities and from the figures shown by the meters of the domestic consumers, the difference being the waste.

For years gas in these cities has been purchased on a percentage basis—two-thirds of the retail price—by the distributing companies from the wholesale companies. In the present cases each lays the blame for the wastage on the other.

One result of the wastage is shown by the fact that Kansas City, Kans., is planning to resume the use of manufactured gas at $1.25 a thousand cubic feet, which is equivalent to natural gas at $2.50.

Officials of the Fuel Administration say that with the conservation which should have been practiced these cities could have had natural gas at 50 cents a thousand feet for twenty years, but that they apparently considered gas at that price so cheap that it was not worth saving.

The Fuel Administration intends to enforce conservation, as the needless use of manufactured gas or electricity involves the consumption of coal, which must be intelligently used and intelligently saved.

ATTEMPT TO MONOPOLIZE MINERALS SEPARATION ALLEGED

Declaring it has reason to believe six concerns with headquarters at London, New York City and in Germany are united in a metal combination in affiliation with the great German metal interests, and are practicing unfair and destrucive methods of competition in the American market aimed at monopolizing the American minerals separation industry, the Federal Trade Commission has issued formal complaint against them and three of their agents. The concerns or persons named in the complaint are:

Minerals Separation, Ltd., Minerals Separation American Syndicate, Ltd., Minerals Separation American Syndicate (1913), Ltd., all of London; Beer, Sondheimer & Company, of Frankfort-on-the-Main, Germany; and Beer, Sondheimer & Company, Inc., and Minerals Separation North American Corporation, New York City; and Benno Elkan, Otto Frohnknecht and Harry Falck, of New York City.

The concerns are charged with enforcing agreements "with the intent, purpose and effect of stifling and suppressing competition" by which they undertake to prevent independent concerns from making, selling or leasing any apparatus, processes, paraphernalia, supplies, data, etc., used in the concentration and separation of ores, which are not covered by patent rights controlled by the combination.

They were also charged with attempting to prevent mine operators, metallurgists, engineers and others from using any such independent commodities except with the combination's permission; and with extorting exorbitant commissions and royalties from both independent concerns and from mine owners, metallurgists and engineers, and with compelling these latter to surrender to them all inventions which they might make in respect to apparatus for the concentration of separation of ores.

They are further charged with:

Discriminating as to royalties exacted from mine operators, between favored operators and operators whom they desire to "discipline, punish and make examples of"; and with discriminating as to commissions exacted from independent concerns, between favored concerns and concerns whom they desire to "discipline, punish and make examples of";

Falsely and maliciously disparaging independent commodities, independent concerns and mine operators, metallurgists and engineers who prefer to use such independent commodities or who deal with such independent concerns.

Falsely and maliciously claiming and asserting exclusive rights, under patents and otherwise, in excess of rights actually possessed, in respect to apparatus, paraphernalia, processes, supplies, data, etch., used in the separation and concentration of ores;

Maliciously threatening to prosecute patent infringement suits against independent concerns, mine operators, metallurgists, engineers and others for manufacturing, selling, leasing, licensing and using independent commodities in respect to which they falsely and maliciously claim exclusive rights;

Intimidating and coercing mine operators, metallurgists, engineers and others to refrain from using independent commodities by withholding or threatening to withhold licenses to use apparatus, processes, etc., controlled by them.

They are further charged under the Clayton anti-trust act with making exclusive purchase selling contracts, fixing prices, rebates or discounts on the condition the purchasers shall not deal in or use the commodities of independent competitors.

The concerns and individuals are cited to appear before the Commission in Washington, December 30, 1918.

IMPORTATION OF CHROME ORE CURTAILED STILL FURTHER

The War Trade Board announced on Nov. 8 that all outstanding licenses for the importation of chrome ore, except those covering shipments from Cuba, Canada and Brazil, are revoked as to shipments from abroad after November 11.

Thereafter, no licenses are to be issued for the importation of chrome ore, except licenses covering shipments from Cuba, Canada and Brazil.

Miner Averages 25 Tons Daily

For effective patriotic service to his country by digging coal, H. L. Witt, a miner employed by the Chattaroy Coal Company, of Hatfield, W. Va., has made a record which is said to be the high water mark for West Virginia, if not for the country. In 251 possible working days, from January 1 to October 23, inclusive, Witt loaded 6,328 tons of coal, or rather more than 25 tons a day. These figures are certified by O. O. Milby, manager of the coal company, and were forwarded to James B. Neale, Director of Production, United States Fuel Administration, by George Bausewine, Jr., secretary of the operators' association of Williamson field.

A splendid record for coal loading also has been set up by Rudolph Cheney, a Conifer, Pa., miner. Cheney loaded 438 tons of coal during the month of September, or an average of 18 tons each working day for that period, according to information furnished to the United States Fuel Administration.

BEST THOUGHT OF NATION NOW BENT ON RECONSTRUCTION

By John Skelton Williams
Comptroller of the Currency and Director of the Division of Finance of the U. S. Railroad Administration

Four years ago in September, 1914, at the beginning of the war, speaking with my knowledge of the resources and strength of our country, and of the men in charge of them, I told a Bankers' Convention at Indianapolis that at the end of the war the United States would be:

"The gathering place for the renewal and distribution of hope and purpose, for the restoration and purification of a civilization drowned in blood and wrecked and dismantled by furious and reckless passion."

And I expressed my conviction that "with the power gathered of peace, the resources derived of honest industry and the will born of our new self-searching, we will lead the world; and will be its dominating influence." And that this wonderful power and influence would be used by us to bless and brighten, to lift, and comfort all humanity.

That was no gift of prophecy. It was simply the application of business common sense to known facts. Now, looking forward, there is no excuse for fear or pessimism and no reason for wild extravagance or frantic optimism. We have money, enormous resources, men and brains. We will need all for the task before us, the most enormous tasks that ever tested a nation.

As we mobilized our young manhood for fighting, we have to mobilize all the wisdom, virility, conservatism, courage and wealth we can command to adjust ourselves to the new responsibilities and duties put upon us, to cooperate with our associated democracies and Allies in giving peace, freedom and happiness to the world. We have a vast load to carry. We have vast strength with which to carry it. Our part is to give our back to the burden, patiently, soberly, steadily, in the fear of God, and with broad conception of our privilege and opportunity.

The time has arrived when these powers and opportunities will be exercised in the fullest measure. It will require skillful guidance and careful steering to turn the tremendous energies of the people, which, for so many months past, have been dedicated to the production of engines of destruction, into the implements of construction to convert our swords into ploughshares and our spears into pruning hooks, and shrapnel shells into locomotives and farm tractors. But the best thought of the Nation is now bent on these great problems; and that they will be solved so as to prevent panic or industrial demoralization we may be assured.

There has been much inflation of certain kinds, which is incident to all wars; and there have been many inequalities in different directions. There has been a great scarcity of labor of every sort, and wages have been thrown out of proportion to living costs in many cases.

The firm hold which the Government found it necessary to take to prevent runaway markets for the necessities of life and for the raw materials needed in industry may now be exercised in a conservative and healthy way to establish a reasonable equilibrium and to prevent destructive and sudden movements, which sometimes in the past have precipitated panics. There is no reason why this country need fear such commercial revolutions or financial crises as those through which we have passed in the earlier years of our history.

The agricultural, mining and industrial activities of this country are enjoying generally phenomenal prosperity, and from a financial standpoint our banks are today stronger and better able to cope with any situation which may arise than they have ever been in the past.

We have raised in the past eighteen months nearly Eighteen Billion Dollars from the sale of Liberty Bonds, and yet the deposits of our national banks today are several billion dollars more than they were before we attempted to place the first Liberty Loan. As an evidence of the improved management and strengthened position of the national banks of the country it is deeply gratifying to point to the fact that during this calendar year of 1918, in which the strain upon our banking resources has been greater than at any time during our past history there has been only one national bank suspension in our entire country. There has been no such record as this for nearly forty years past. This immunity from failure is the more gratifying when we consider the extraordinary stress of these difficult times through which we have been passing with the whole world aflame.

We are no longer a debtor Nation. Our Government is now lending to the Allied Nations nearly $8,000,000,000, while our loans and investments in Central and South American countries also amount to hundreds of millions of dollars, which also go to swell our credit balance with the world.

The industrial capacity of this country as a producing nation has increased enormously since the outbreak of the War. But the entire energy of the country, not absolutely required for the production of food and clothing, has been mainly engaged in the making of munitions and implements of war and terrific engines of destruction. Hereafter, these energies will be dedicated to the work of upbuilding and regeneration.

In the coming world adjustments, the fruits of the earth, of industry, and of commerce must be divided between capital and labor on the basis of equity and justice, and this will increase unspeakably the comfort and health and welfare of our people and of all peoples. This task is a stupendous one, but one which the American people are fully capable of solving; and I do not doubt that the manhood and courage and resourcefulness which have characterized our people in war will enable them to settle the tremendous problems of peace without real danger of interference from the bolsheviki or the anarchist.

Three million young, strong, trained men, with new and comprehensive understanding of world obligations will be back among us, applying their creative force to the endless power of production of our land, and mines, and waters, our continental and island possessions. With such a combination, there is no limit to our possibilities of achievement.

GENERAL GOETHALS EXPLAINS CONTRACT CANCELLING RULES

The following memorandum has been issued by Major General George W. Goethals, Assistant Chief of Staff and Director of Purchase, Storage and Traffic, regarding arrangements that have been devised for the termination of war contracts in the public interest where such termination is found necessary.

After very careful consideration, the Superior Board of Contract Review approved and the Director of Purchase, Storage and Traffic issued Supply Circular No. 88, dated September 7, 1918, containing standard contract provisions, including provisions on "Cancellation and Termination before Completion."

These provisions cover cancellation for contractor's default, termination in the public interest, assignment of sub-contracts and taking possession of contractor's plant.

Referring particularly to termination in the public interest, Supply Circular No. 88 establishes definitely the payments to be made by the United States in the event of such termination, for articles completely manufactured at the time and for raw materials, articles in process of manufacture and the contractor's outstanding obligations incurred in good faith in connection with the performance of the contract. Provision is also made for payment by the United States to the contractors of a fair amount on account of depreciation or amortization of plants, facilities and equipment provided by the contractor for the performance of his contract.

In return, the United States is released from its obligation to take the remaining articles, not manufactured, specified in the contract and to pay anticipated profits to the contractor on the unfinished portions of the contract.

The contract provisions have been worked out with considerable care to meet the situations presented both by fixed-price contracts and cost-plus contracts. The provisions applicable to fixed-price contracts are found on pages 5 to 8 inclusive of Supply Circular No 88 and the provisions applicable to cost-plus contracts are found on pages 17 and 18 of this supply circular.

A large number of contracts now outstanding do not specifically provide for termination in the public interest. If it becomes necessary to terminate such contracts in the public interest, it is assumed that the parties will generally desire to adjust their rights on the basis of the equitable principles established by the contract provisions contained in Supply Circular No. 88 referred to above.

Supply Circular No. 97 sets forth contract provisions applicable to contracts providing for continuing deliveries, including provisions for termination of the contract in the public interest. These provisions apply directly to contracts executed under the provisions of Supply Circular No. 97 and it is assumed that the parties will desire to use them in connection with the termination of analogous contracts providing for continuing deliveries even though they do not contain specific provision on the subject of termination in the public interest.

In order that questions arising under the contract may be promptly and fairly settled, there has been created a Board of Contract Adjustment.

Supply Circular No. 88 contains on Page 12 provisions on "Adjustment of Claims and Disputes" providing, in effect, that any claims, doubts or disputes which may arise under the contract and which are not disposed of by mutual agreement, may be determined by petition of the contractor to the Secretary of War or his duly authorized representative or representatives.

In order to adjust such claims, doubts or disputes as may be thus referred to the Secretary of War and also other claims, doubts or disputes which the contractor may desire to refer directly to the Board, a General Order has been issued creating the Board of Contract Adjustments and defining its powers and duties. This Board will consist of three members having the rank of Lieutenant Colonel and will conduct hearings, appoint examiners and reach decisions promptly and on principles of equity without the delays and technicalities which frequently attend litigation in the courts.

If a contractor is dissatisfied with the decision of this Board, he may appeal to the Secretary of War.

It is assumed that in most instances contractors will be satisfied with the decisions thus rendered and will not find it necessary to avail themselves of their right to resort to the Court of Claims.

COMMERCIAL ACCURACY IS A RECONSTRUCTION NECESSITY

By Burwell S. Cutler

Chief of the Bureau of Foreign and Domestic Commerce

Just as a general of armies in the field searches out the ground ahead of him before he advances, so should a sales manager in command of field forces know intimately every phase of his territory," said Mr. Cutler. "In war, the commander gives no order for an advance until every valley ahead, every hill, road, and defensive position, is known as completely as may be. If he takes a chance, it is because a certain degree of failure due to ignorance of conditions will not prejudice his campaign seriously. The disaster that is bound to follow habitual speculation or hazard is today exemplified on a mammoth scale by the collapse of the German government, which gambled the destiny of the German people on the chances of world dominion and lost out because it had not accurately counted its opponents and their resources.

Likewise we have seen many a business concern dashed on the rocks of its own temerity. The appalling percentage of business failures in the United States is due largely to ignorance—ignorance of cost accounting, ignorance of market, ignorance of proper production methods, and ignorance of the human element composing labor. As a nation we have generally depended on luck and hustle to produce the big results of which we are so fond. Evolution, stability, and a long look into the future have appeared to us somewhat superfluous to success on a big scale. This is not the attitude of all American concerns, of course, for there are some of national scope whose foundations are laid solidly in the concrete of study, experimentation, and laboratory research.

Things are not as they used to be. Our industrial capacity in many directions exceeds the normal demand, whereas formerly the reverse was the case. A sign of this is found in the widespread concentration of trade individuals into associations respecting actual costs and the necessity of trade integrity. Another sign of over capacity is the attraction to overseas trade that is operating on every hand.

Outside of our own boundaries, said Mr. Cutler, we are more certain than ever to meet the competition of merchants who know thoroughly what they are doing. The European merchant is a grubber after facts. He studies his field like a jewel appraiser with his microscope or a lace buyer with his millimeter rule. His banks go carefully and patiently into the personal life of a possible customer; his official advisers take into account even the political views of consignees, and his utilization of racial preferences for color, style, size, etc., is infinite. His habit of action is still that of a painstaking artisan who slowly fashions a commodity and then carries it from household door to door, inquiring about the health of the family while his commodity undergoes pitiless inspection upside and downside by the entire household. He does business minutely on a large scale.

So indeed do many of our largest concerns after they have reached the point of size where laboratories and a scientific staff can be afforded, but too many of our concerns continue to do business on a hunch.

HOLDS THAT $34.80 A WEEK NEEDED TO SUPPORT FAMILY

In announcing a recent award, Frank P. Walsh, joint chairman of the National War Labor Board, gave the following opinion:

"By the award granting the pressman and assistants of New York a wage increase of $6 a week, the board has gone no further than the barest justice demanded. The pressman were receiving $24 a week. This was $4 a day, which is the prevailing wage for unskilled labor, and the wage paid the unskilled laborer is never more than enough (sometimes not enough) to meet the costs of the plainest physical necessaries. Yet these men, whose work requires skill and training, were paid on the same basis.

"Though the award gives them a 25 per cent increase in wages, it does not bring their pay much higher than would have been necessary to make the increase in accordance with the increase in living costs. This method of measuring justice by the ratio between previous wages and present wages, and the ratio between previous living costs and present living costs is unsatisfactory, for it assumes that purchasing power should remain stationary: it assumes that wages in 1915 (or at whatever time you take a basis) were adequate. These 2,500 pressmen were receiving in 1915 $17 a week, which was insufficient to maintain their families. They now receive about the same wage, so far as actual purchasing power is concerned. Still there are pressmen in the United States, many living in cities, who receive a lower wage. The Chicago pressmen showed before this board that the cost of living was not appreciably different in Chicago and New York; but the Chicago pressmen were given a wage of $24 a week."

Exhaustive investigations by the staff of the National War Labor Board have demonstrated that 72½ cents an hour or $34.80 a week for 48 hours' work, is necessary to support a family in health and reasonable comfort. Any wage less than this is penalizing the worker's family for the benefit of the employer, or the general public.

TRADE COMMISSION HEAD TALKS ON RECONSTRUCTION

By William B. Colver

Chairman, Federal Trade Commission

Reconstruction seems to mean a high and honorable place in the family of nations, and not a lust for empire; and at home, opportunity for all, special privilege for none. And this carries with it, in the fullest measure, the completest protection and validation of the rights of property, which in turn for such protection must be regarded as the useful servant of mankind.

In the domestic aspect reconstruction must likewise proceed from an understanding of changed relationships. The nation emerges from the war with a victory dearly bought in blood and treasure. An enormous national debt remains.

This debt takes the form of billions of dollars of bonds to represent the money cost of the war and an everlasting obligation to the young men of the United States and to their children and to their children's children which the nation has incurred when it put in jeopardy their lives, when they crossed the sea and shed their blood gladly that liberty, democracy and the right to life, liberty and the pursuit of happiness might be everlastingly preserved.

These two debts must be liquidated. The money debt must be paid. To the payment of the billions of dollars of Liberty Bonds are pledged the natural resources of the nation and the first fruits of man's labor and of nature's bounty. This would seem to mean that an end has come to the exploitation of the nation's natural resources, and that the surplus above a generous return for capital and energy and initiative shall be devoted to the liquidation of the national debt.

The second debt, the blood-debt, owing to our millions of young soldiers of the Army of Liberty, and no less to their mothers and their wives and children, must be paid by making this country—and, in so far as our voice shall be heard—making the world safe for democracy, which is to say, safe for human rights, the right of every child to be well-born, well-fed and well-clothed, and the right of every child to have a fair opportunity in life.

The needed factors in rebuilding foreign trade on permanent foundations are, first of all, a knowledge of the business methods, the people and the needs and tastes of those with whom we would trade. We must give them what they want and as they want it. We must go on the theory that "the customer is always right." Now comes cost of production, quality of goods, transportation and banking facilities. Comparatively low cost of production is essential, as the bulk of international commerce is in staples and sold on price basis.

Naturally, our ships, to give low freights on exports, must bring back freight revenue producing cargoes.

The transaction will be more profitable as we export less of our precious raw material and more of our finished products. As to certain basic raw materials, notably metals, the export may well be kept, for a time at least, under control. Certainly, the manufacturers of the United States must not be made to bid against a world desperately in need of our own basic raw materials.

It does not accord with your ideals to consider that either the scalping of a market or a dumping upon it is a real building up of business. Profit lies in repeat orders, and good-will in the foreign market, based on quality goods and fair dealing, will come to be the great national asset as to foreign trade.

Under Section 4 of the Webb Law, the Federal Trade Commission is required to enforce such a code of business ethics in the export trade. We know such a code is your desire, and we are at your service.

GOVERNMENT CANNOT BE INTIMIDATED, SAYS McADOO

Director General McAdoo has made public the following correspondence:

St. Louis, Mo., Nov. 16.

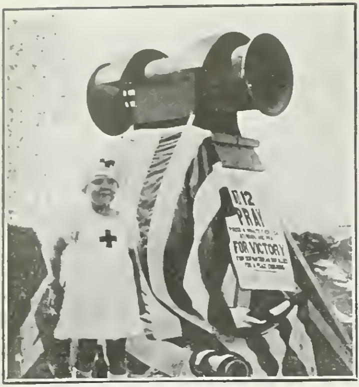
"W. G. McAdoo,
"Director General of Railroads,
"Washington, D. C.

"The telegraphers, train dispatchers, train directors and levermen employed on the Terminal Railroad Association of St. Louis and affiliated lines will cease work seven o'clock Monday morning, November 18, unless award has been made by you on wage and working conditions, case which you have been considering for several weeks. (Signed) J. F. Siefert, General Chairman."

"Washington, D. C., Nov. 16, 1918.

"J. F. Siefert,
"General Chairman, Terminal R. R. Association of St. Louis, St. Louis, Mo.:

"Your telegram sixteenth threatening a strike at St. Louis unless my decision as to the wages of telegraphers is rendered before Monday morning, November eighteenth, at seven o'clock, received. It so happens that the order recommended by the Board of Railroad Wages and Working Conditions was signed by me before receipt of your telegram. If the decision had not thus been made before your threat of a strike was received, the order would have been withheld until this threat had been eliminated. You must understand that the United States Government cannot be intimidated and that it is highly improper to attempt to do so. (Signed) W. G. McAdoo."



MISS IRENE ELLIOTT MOORE
Beside the Washington Angelus Siren, which she has just unveiled.

The word "Angelus" brings to mind the beautiful Corot masterpiece. One thinks of musical chimes echoing over peaceful fields at twilight, while peasants stand with bared heads in silent prayer.

But the Angelus of present times is rather a rude contrast to all this. Its weird, penetrating screech echoing over the skyscrapers of a great city has nothing of musical charms, but it is the height of modern efficiency in reaching every nook and corner to halt the rush of business and war preparation for a brief prayer for the success of the Allied Arms.

Patriotic Christian people the country over are furthering the Angelus movement. To apply the Angelus idea to modern times, there was need of a signal louder and more distinctive than any ordinary bells or whistles. The Federal Electric Siren was the one signal that filled this need and therefore was the unquestioned choice. Large Double Head Federal Electric Sirens have already been mounted on tops of tall buildings in Washington, D. C., and St. Louis, the two largest cities which so far have taken up the Angelus movement. The instrument used is identical with the one used by scores of cities and towns as a fire warning, and by numerous mines and industrial plants as starting, quitting and emergency signals.

New Fuel Administrator for Virginia

R. H. Angell, of Roanoke, has been appointed by United States Fuel Administrator H. A. Garfield, to be federal fuel administrator for Virginia, in the place of H. F. Byrd, who has entered the military service.

NEW ENGLAND ASKS FOR REDUCED BITUMINOUS COAL ALLOTMENT

Intensive conservation of fuel in New England has been so effective, according to an announcement made by the United States Fuel Administration, that the State Fuel Administrators of that section have asked for a reduction of their bituminous allotment for the coal year. Originally, 30,000,000 tons were allotted to this district and 17,219,000 tons have been delivered. Now the administrators have asked that their allotment be reduced to 27,300,000, effecting a saving of 2,700,000 tons.

Official figures for the first six months of the coal year—from April to October 1—show that in that period 15,897,748 tons were shipped into New England. If the original shipping schedule had been carried out, the movement into that district would have been 18,000,000 by October 1 and at the rate of 2,000,000 tons a month for the remainder of the coal year.

The State Fuel Administrators recommend now that the allotment for the first six months of the coal year be reduced to the actual amount of coal arriving in that period or 15,900,000 tons, as compared with the originally scheduled 18,000,000. This would account for 2,100,000 out of the 2,700,000 tons proposed reduction and leave 600,000 tons to be deducted from the scheduled shipment of 2,000,000 tons a month from October 1 to April 1.

This voluntary request for a reduction of the allotment was the result of systematic conservation by all classes of consumers. In Massachusetts, it is estimated there will be an average saving of 10 per cent on all bituminous coal. The same is expected of Connecticut. In Rhode Island, conservation work began later than in Massachusetts and the saving will be less, but the total bituminous coal consumed in the state is a minor factor compared with Massachusetts and Connecticut. In Maine, New Hampshire and Vermont, also, conservation work began later than in Massachusetts and Connecticut, but during the autumn, streams in these states which furnish water-power have been much higher than last year and the lakes and rivers contain an excellent water supply. In these states, hydroelectric plants are relatively very important and it is believed this factor offsets the later beginning of conservation work.

Peek Assigned New Duties

George N. Peek, Commissioner of Finished Products of the War Industries Board, has been delegated to represent the War Industries Board in its dealings with Herbert Hoover in the latter's demands for materials needed for the reconstruction work in Belgium. Mr. Peek's headquarters will continue to be in Washington.

ANTHRACITE PRICES RAISED TO COVER NEW LABOR COSTS

A price schedule for anthracite coal, revised to meet increased labor costs, was announced November 8 by United States Fuel Administrator Harry A. Garfield, effective on coal mined on or after November 1. At that time approximately 60 per cent of the estimated season's supply had been mined, and all of this, under Mr. Garfield's order, will be sold at existing prices.

The full power of penalty, under the Lever act, will be exercised to prevent the adding of any allowance to any coal shipped on or after November 1 on which the increased wages were not paid.

The new schedule includes only the actual additional cost of a recent stabilization of anthracite wages, which were found by the Conference of National Labor Adjusting Agencies to be considerably below the standard of wages paid in the bituminous industry and in corresponding industries. Urgent appeals by operators for further increases to meet losses now said to be incurred in various mining operations were disallowed, and the industry was advised that such deficiencies would have to be met without recourse to the public.

The new schedule, which carries forward without change the existing differential between the large companies and the individual operators in favor of the latter is as follows:

White Ash Grade—

Size	*Operators*	*Price*
Broken	Companies	$5.95
Broken	Individuals	6.70
Egg	Companies	5.85
Egg	Individuals	6.60
Stove	Companies	6.10
Stove	Individuals	6.85
Nut	Companies	6.20
Nut	Individuals	6.95
Pea	Companies	4.80
Pea	Individuals	5.55

Red Ash Grade—

Broken	Companies	6.15
Broken	Individuals	6.90
Egg	Companies	5.45
Egg	Individuals	6.20
Stove	Companies	6.30
Stove	Individuals	7.05
Nut	Companies	6.30
Nut	Individuals	7.05
Pea	Companies	4.90
Pea	Individuals	5.65

Lykens Valley Grade—

Broken	Companies	6.40
Broken	Individuals	7.15
Egg	Companies	6.30
Egg	Individuals	7.05
Stove	Companies	6.70
Stove	Individuals	7.45
Nut	Companies	6.70
Nut	Individuals	7.45
Pea	Companies	5.15
Pea	Individuals	5.90

These sizes comprise 70.6 per cent of the total anthracite output. Remaining anthracite sizes, comprising 29.4 per cent of the output, are nearly immobile at existing quotations, and no price adjustment was made as to them. With any advance, bituminous coal would undersell them and they would fail to move, in which case, as their mining is inevitable, the cost thereof would fall upon the other sizes.

The actual increased cost per ton, because of labor, was found by engineers of the Fuel Administration to be 74 cents. This information was developed by taking the average number of men employed over a period of six months at each different kind of labor in each mine and developing therefrom the total increase in labor cost. This, divided by the annual output of approximately 81,000,000 tons, gave the increased cost per ton. Dividing this in turn by the percentage of output over which the advance was spread, gave $1.05, the increase applied per ton. Existing prices on sizes where no change was made are buckwheat, $3.40 to $4.15; rice, $2.90; barley, $2.65; screenings, $1.50.

Possibility that in some instances dealers, through a misunderstanding, might undertake to impose immediate advances in prices was taken cognizance of by the Fuel Administration in emphasizing the stipulation that coal should bear the specified additional cost only where it also bore the additional cost of labor in the mines. Consumers in doubt as to proper billing for coal were asked to refer their bills to their local fuel administrator for investigation and adjustment.

Iron Ore Importations

The War Trade Board has announced that, in addition to the general license PBF No. 14, covering the importation of iron ore from Sweden and Spain when coming as ballast in ships returning from those countries (see W. T. B. R. 234), licenses may be issued for the importation of a maximum total from all sources of seventy thousand (70,000) tons of low phosphorus iron ore from Spain, Sweden, Norway, and North Africa, provided the said ore be imported and entered prior to July 1, 1919.

By low phosphorus iron ore is meant iron ore which contains in the proportion of not more than .12 per cent of phosphorus to 50 per cent of metallic iron.

The total amount of low phosphorus iron ore so permitted to come forward will be allocated by the Bureau of Imports.

LABOR SHORTAGE AFFECTS ALL MINING AREAS OF THE COUNTRY

By James Lord

Chief of the Mining Division of the U. S. Employment Service

After many conferences with representatives of the Fuel Administration; representatives of the United Mine Workers of America, and representatives of coal operators associations; and many metalliferous producers, our division found that in addition to our knowledge of conditions in the coal industry and from information supplied through the conferences we have had with the different elements above mentioned, that there was a shortage of mine labor in practically every important coal and metalliferous producing region in the United States. Letters addressed to the United States Employment Service by coal and metal operators from nearly every important mining region in the country, making requests for thousands of additional miners and mine workers were turned over to the Mining Division at the time of its organization.

This shortage of mine labor was principally due to the great and abnormal demand for coal and metals in order to meet the requirements of the Government in conducting the war to a successful termination; and secondly, because of the great number of miners and mine workers that had entered the military service of the United States. Upward of 75,000 men coming out of the coal industry alone; in addition many thousands of skilled mechanics and men holding key positions in and around the mines were induced to, or on their own initiative accepted services in essential and non-essential industries which added to the number already in the army and navy, seriously crippled the production of coal and minerals, which necessitated that some action be taken on the part of the Mining Division to meet this crucial situation without delay.

SOURCE OF MINE LABOR SUPPLY

After an investigation of the mine labor situation it was self-evident that the most likely and the only available source of mine labor that could be recruited and diverted to the mines was in the non-essential industries and industries less essential than the production of coal and minerals where miners and mine workers had drifted after leaving the mining industry. The problem confronting the Mining Division was how to locate and create contact with practical miners working in these industries. As a prospective solution of this problem it was deemed advisable to solicit the aid of the local officers of the United Mine Workers of America. With this object in mind and for the purpose of securing information as to the addresses and location of mine workers who had left the mines the attached circular, which appears as Exhibit "A" was sent to the local secretaries of the United Mine Workers of America and where the purpose of the Mining Division, as outlined in the circular letter, was not clearly understood the attached follow-up letter which appears as Exhibit "B" was mailed to the local secretaries.

The Mining Division has reasons to feel gratified at the splendid response to the circular letter issued on September 7, to the local secretaries of the Miners Union. More than 15,000 names, addresses and locations of practical miners that were working outside of the mining industry in non-essential work were immediately supplied to the Mining Division.

VOLUNTARY WORK

In addition to the names supplied a great many of the local union officers of the United Mine Workers on their own responsibility got in personal contact with mine workers that were working at non-essential work in the mining communities and influenced their return to the mines. In this way many hundreds of practical miners were returned to the mines, of which we have no direct record and consequently cannot claim credit for any specific number. However, we feel inclined and think it proper that the local secretaries should be, where they have induced mine workers to return to the mines, given credit for this work.

PLACEMENT OF MINE LABOR

Since August 1, the date on which the mining division was organized, and took charge of the recruiting and distribution of mine labor, up to and including the 31st day of October, 1918, covering a period of three months, there was placed in the mines 5,881 miners and mine workers, the majority of which were working in non-essential industries and who were induced to return to the mines and lend their services in the production of coal and minerals. Let it be said to their credit that many of these men in returning to the mines gave up more agreeable occupations which netted them larger wages than they could get as mine workers. Their motive in returning to the mines was prompted by patriotism and a zealous desire to fit into the industrial life of our nation, where their services could be utilized to the greatest possible degree in making for the success of the war. This number is exclusive of the men that have been influenced to return to the mines through correspondence from the Mining Division without advising us of their return. Of this number a complete record is unobtainable. Nor does it include those who have entered the mines on their own initiative, when it became known to them that it was their patriotic duty to return to the mining industry.

We are pleased to report at the present date we are receiving very few requests from the operating companies producing coal or minerals from any section of the country for additional mine labor. This would indicate that the mine labor situation has taken on a very favorable outlook.

COMPLAINTS HANDLED

During the period covered by the report, thirty-seven (37) complaints dealing with the recruiting and distribution of mine labor were satisfactorily adjusted by the Mining Division. In every case the operators have accepted advice from the Mining Division relative to the questions coming under our jurisdiction and have more than cooperated with us for the success of our program, and to them in a large measure, a great deal of credit is due in solving the problem of mine labor shortage.

ESTIMATES FOR NOVEMBER AND DECEMBER

In the extension of our program to reach by correspondence or personal contact all the practical miners and mine workers that had left the mines and are now engaged in other work we are of the opinion that through the instrumentality of the Mining Division and the cooperation of the employers and employes engaged in the production of coal and minerals, we can safely say that during the coming two months, that we can place in the mines 10,000 men in November and 25,000 men in December, which we believe will take care of the labor requirements in the coal and metalliferous mines of the country. In other words, by January 1, 1919, with the placement of the number of men estimated for November and December, that the fuel and raw materials will be produced in sufficient volume to meet the requirements of the markets.

Saving of Anthracite Urged

So that "a margin of safety" may protect the public this winter, the United States Fuel Administration has called the attention of householders to the continued need for conservation of anthracite coal.

While the supply of coal in prospect will be sufficient for the winter, provided it is consumed with patriotic economy, the recent epidemic of influenza has reduced the production of anthracite from 5 to 15 per cent, a loss of about 500,000 tons.

GARFIELD DECLINES TO ALLOW CHANGE IN B. T. U. STANDARD

United States Fuel Administrator Harry A. Garfield has announced that, under existing conditions, he does not feel warranted in recommending to local boards the abandonment of existing gas standards, as a fuel-saving measure.

A special committee was appointed in connection with the Bureau of Standards to investigate the heat value of artificial gas, but since the creation of this committee, Mr. Garfield pointed out, the fuel situation has materially changed.

Public service corporations are asked to consider whether a reduction of British Thermal Unit standards by companies under their jurisdiction will actually save oil, with the recommendation that if a reduction in quality is ordered there should be simultaneously a corresponding reduction in the price of gas. The statement says:

"In July last the United States Fuel Administrator appointed a special committee in conjunction with the Bureau of Standards to investigate the heat value of artificial gas with a view to recommending what change, if any, in the B. T. U. standard would save coal or oil. Since the creation of this committee, the fuel situation has materially changed. The production of bituminous coal has increased under the stimulus of the Administration to unheard of figures and the situation is not as critical as last summer. Yet it is probable that under zoning orders of the Fuel Administration, some gas plants throughout the country will not be able to receive their customary rate of coal and this may necessitate a temporary reduction in gas standard.

"At the cessation of hostilities the demand for oil and coal will be transferred to other channels and the pressing demand for immediate deliveries will be reduced to such an extent that the Fuel Administrator does not feel warranted in asking local boards to abandon existing standards.

"While it is not within the province of the Fuel Administration to request thrift in general, Mr. Garfield desires to call attention to the fact that we are using up our oil deposits perilously fast and therefore Public Service Commissions should consider whether or not a reduction of B. T. U. standard by the companies under their jurisdiction will actually save oil. In the interest of the public, however, wherever a reduction in quality is ordered or approved there should be simultaneously made a corresponding reduction in the price of gas."

SALVATION OF COAL PRODUCER LIES IN UTILIZATION OF BY-PRODUCTS

By George H. Cushing

Before the war, the coal trade had competition and wanted to get rid of it by government supervision.

During the war, the coal trade had limited competition through government regulation and got enough of it in fourteen months.

Since the war ended, the coal trade has been roaming the fields of speculation looking for something new. It had been outside of control and wanted in. It recently has been inside and wanted out. It is satisfied with neither. Now it wants to find a place that—contrary to the laws of nature—is neither outside nor inside. Coal men are now trying to find a new solution for their ills without trying any dangerous experiments. It is just possible they are not looking in the right direction.

What coal has always had is competition. So, in a search for a sinecure, that is the first thing to study and understand. Coal is a common necessity. Like bread and clothing, every one must have it. That assures a market all the while for a fixed tonnage. In consequence, every one with money wants to produce coal, as he supposes he will always have a sure market. What is overlooked is that you can encourage gluttony and hence the purchase of more food and style with the use of more clothes, but you cannot encourage the use of a ton more of coal.

Once there was a medical student who was looking for a specialty. He said:

"Everyone has a stomach. Everyone lives on it once a day at least. It is likely to get out of order. Because a stomach in good order is a common necessity that's my specialty in future."

Coal is about like that. Everyone uses it, so it should find a ready sale. But unfortunately for the producer, everyone, nearly, has it. It underlies the equivalent of a fifth of our area. It is everywhere in quantity. And, there is enough of it to last thousands of years.

For this reason, the coal producer equipped with an elaborate mine is not competing with the existing mines, only. He is competing with those, plus the mines which are sure to spring up in the reserve coal land the instant the trade is made uniformly or even on the average profitable.

Today, this normal competition has been wonderfully magnified by the need to produce more to win the war. For two years, prices were attractive. During that period, the government pleaded for a larger output. In response, the actively producing mines increased in number from 5,000 to about 7,500. The actual production went up from the maximum of 575,000,000 tons in 1913 to about 715,000,000 tons in 1918. Meanwhile, the normal demand—as distinguished from the war need, —has increased to about 600,000,000 tons annually.

In addition, "wagon" mines have come into existence to the number of more than 15,000. In one place, they have formed themselves into an association to protect their future. Also, within the last two years, dozens of new mines have been sunk or opened which are now about ready to produce. In one week, the Fuel Administration gave permits for the opening of 300 new shipping mines with regular rail connections.

Taking the wagon mines and the new mines together, it is safe to say that they have a capacity to produce 35,000,000 tons more coal per year. This means that the proved productive capacity of the nation is now 750,000,000 tons of all kinds of coal each year.

In 1919, it is reasonable to suppose we are going to have some setback to business. If it amounts to only 5 per cent it will cut the use of coal by 30,000,000 tons below normal. Thus with production at a possible 750,000,000 tons and with demand not to exceed 575,000,000 tons, coal has a potential over-production of 175,000,000 tons.

If we allow for 25,000,000 tons of exports —this is double the immediate possibilities —coal still has an excess productive capacity of 150,000,000 tons, or 25 per cent. That sort of competition is surely ruinous.

The remedy—so some say—is governmental control. Indeed, within the month, Senator Lewis of Illinois, not returned, incidentally, at the November election—presented a bill for government ownership of the mines.

Seeing the situation as to supply and demand, by which they are faced, the coal men would not scorn a chance to sell out to the Government. It is a wide open question whether the people are either willing or able to buy. They, surely, will want to measure the cost against the benefit. For instance, the Fourth Liberty Loan was all spent before the armistice was signed. The country was running then and now on banking arrangements made in anticipation of money to come in by the flotation of the Fifth Liberty Loan. When that has been floated, the debt of the country will be about $25 000,000 000. Thus the nation's debt already is so large it staggers the people.

To buy the existing coal mines, the country would have to spend an additional

$2,000,000,000 for the plants alone. Then to protect those plants, and to mollify those who own coal and intend some time to open a mine, it would have to acquire the coal land which underlies the entire United States. If this were purchased at so little as two cents a ton in the ground, it would cost the country $83.772,000,000. This sum is more than three times the total cost of the war, including the amount raised by taxes.

If, to raise this money, the Government should have to pay 3 per cent only, the annual interest payment would be $2.513,160,000. This is about two and a half times the total maximum cost of running the country during any one sittting of Congress.

Or, to figure it another way, the interest charge on the coal reserve alone would be $4.18 per ton of annual production if we produced the 600,000,000 tons of output now considered to be the normal demand.

Evidently, Senator Lewis is not figuring closely when he recommends that the nation buy the coal mines.

If through the benevolent intervention of Senator Lewis, the coal industry is not going to be allowed to unload its overburdened properties upon the Government, then some other plan of governmental control may be suggested. The instant one starts to discuss any conceivable plan, he comes, finally, as Mr. Rush C. Butler said the other day, back to the difficulties inherent in our form of government. Our forefathers were so fearful of developing an ignorant autocrat—and autocrats are ignorant or they would not be autocrats—making it impossible for the government ever to enjoy too much power. The system of checks and balances which they provided is complete, and the natural result of an attempt to use force is the very conflict of departments which held the Government back in every vital undertaking of the war.

But, assuming that it is possible to avoid that conflict and that, by some legerdemain, it is going to be possible to galvanize the Government into constructive action, we are faced at once by another distressing possibility.

Mr. McAdoo, who was the crowning glory of the Wilson Administration, has just resigned. He says he cannot stand the pressure of the high cost of living in Washington, offset only by the low government salary. Officialdom has apparently eaten him out of house and home. Wherefore, he must return to the law to pay for the glory which his many recently held titles brought him.

Other men in Washington have faced the same embarrassment. Mr. Scott, who organized the Council of National Defense, had to go home to recuperate. The officials of the Emergency Fleet Corporation and the Shipping Board had to do the same thing. Recent reports indicate wholesale resignations about to be tendered. This means the quick departure from Washington of men who have been doing the nation's work.

This can mean only an impending reversal of form at Washington. Instead of hundred-thousand-dollar a year men working for a dollar a year, we will have dollar-a-year men working for much more. Regulation of business—if continued—will not be done by the best but the otherwise jobless men of the country. Coal men have been and still are unwilling to submit themselves to any such an ordeal as this must entail. So, they have been walking up to the government and turning to go away again.

The facts are that the coal men need some such help as the power of the Government could extend. They have no fear of government regulation per se, because they know that the author of justice cannot itself be unjust. But they have the most wholesome dread of the sort of men who in this era of practical professional politics make up the government. That sounds like a terrible indictment of our public men. It is. It amounts to a declaration that our men of business have lost faith in the kind of men who, in these curious times, serve the country in its various departments. The suspicion with which business men view politicians is justified by the theory that like begets like. For years, Washington has not been willing to trust business in any respect. Today business simply reciprocates. It says that those who will not trust others cannot themselves be trusted.

A man coming to America from the outside world and seeing this situation without any prejudices in favor of one side or the other, would naturally say:

"Well, if you people do not like the kind of men who are running things in Washington, why don't you send better ones? If those who offer themselves to represent you are not good men, why do not men of the better sort go in their places?

At that point, we come back, as Mr. Butler said, to our form of government. That stands in the way of any radical change. Good men will not be bound by checks and balances which make action impossible. Since it is not possible to change the whole system and since the present type of men are the logical outcome of the existing system, the coal men have decided to take the other side of the street. They will try to work out their problems without government aid.

The essence of all this figuring and arguing is one simple disclosure: Coal has been looking even as the politicians have been looking for some great comprehensive scheme which will save the industry and the country with one act of legislation. They want something that will scoop saint and sinner alike into one great scheme of control and make saints of them all. Apropos this ambitious search, I recall a remark made by F. S. Peabody on an occasion when we were discussing another phase of this same question. It was:

"According to the Good Book, Christ died to save the whole world. But while salvation was made free for the asking, the individual had to accept it if he were to get the benefit. Even in the salvation of the race, there was offered no panacea. Redemption was not forced on the people. It was simply made available.

"You cannot save industry by decree or statute. You can give industry a device that it can work under if it wants to. If it does not work under that device, and if it fails as a result, then industry is to blame. You need not expect a panacea in business. It cannot be found."

The fact is that coal men want salvation today, with large and liberal mental reservations. They want production curtailed, but they want the other fellow to do it. They want the Government to interfere with competition but not with profits.

And, the more I think about the question, the more I have come to agree with Mr. Peabody that the coal industry is a matter pure and simple of the survival of the fittest.

Today, several roads to reasonable safety are open to the man who really is qualified to be in coal. One of them—and the most promising—is to put less stress on the quarrying end of the business and to devote a little more attention to the manufacturing. Coal is not a finished product. Especially the high volatile coal is not a finished product. It is merely the raw material for manufacture into something like 1,500 other things. If the coal man has the ingenuity and the skill to manufacture those other things, he will get along. If not, the coal trade will not miss a quarryman or two who is forced to retire from the business by his own lack of energy, daring and capacity.

I realize that this solution of coal's difficulty is considered to be hopeless idealism. I have been told that it is "good propaganda but not practical." Even my friend Rush Butler said that much to me on a recent occasion. So, it is nothing to which the trade has turned definitely in search for safety. Still, I can no more get his point than he can get mine. He can't see why a thing which has not been done should be tried. I cannot see why a development, delayed for years, should be postponed any further.

While coal is not acting in this way, it has taken one step which will likely bring the safest outturn so long as it insists on following the old routine. President Wheelwright of the National Coal Association has decided not to try for a solution of the trade's ills by a separate study by coal men. Rather, he has appointed a coal committee to work with the Chamber of Commerce of the United States. That committee will preside over the coal and coke section of the Chamber at the meeting of the war service committees at Atlantic City on December 4, 5 and 6. It thus catches step with the business of the nation and finds that reasonable safety by joining the mass of business men who are studying the whole business situation.

WORK IN ARIZONA

By J. E. Curry

Bisbee, Arizona.—The work of the Arizona Chapter of the American Mining Congress during the past year has been closely allied to the war activity of the Government. Little effort has been made to initiate new projects except in connection with the encouragement of cheaper and better housing conditions for the miners of the State and the assembling of data as to present costs of production and the number of leasers and small operators in the State. The small operators and workmen of Arizona were urged to realize that the Income Tax Law interpretation, price fixation, and pending legislation were matters of vital importance and urged cooperation on the part of the small shippers with the large producers in efforts to avoid injustice in pending legislation.

The meetings of the chapter throughout the year were exceptionally well attended and the spirit of cooperation was the dominant element in all chapter work.

The Arizona Chapter took an active part in the raising of Arizona's quotas of the Liberty Loans, and patriotism has been the dominant keynote in all of the activities, individual and collective.

From time to time the chapter has expressed the consensus of opinion of the producers of this State as to pending activities in the War Industries Board at Washington and has endorsed a number of protective measures looking to the betterment of the mining industry.

There has been a marked increase in membership and the year is closing with promise of a greatly strengthened organization for 1919.

Coke Producers Give Aid to Railroads

Coke producers in and around Uniontown, Pa., are supplying men to help the train crews move cars at the Republic yards of the Monongahela Railroad, according to reports received by the United States Fuel Administration.

PEACE TURNS TIDE AGAIN IN FAVOR OF GOLD PRODUCER

By Henry T. Scudder, *Marinette, Wis.*

The production of gold is now unprofitable because gold is cheap. We know that gold is cheap because it is worth in exchange only about half of what it was worth four years ago. A ten-dollar gold piece will buy no more than a five-dollar gold piece would buy in 1914. Gold has become so cheap that the $20.67 of gold coin that can be made from an ouncee of fine gold will not pay for the labor and material necessary to produce an ounce of gold. We may know that gold is cheap by the decline in its silver price. The Mexican silver dollar is still the standard money in a considerable part of the world's trade. In 1914 it took 49.21 Mexican silver dollars to buy an ounce of fine gold. Now an ounce of fine gold can be bought for 25.81 Mexican silver dollars. The silver price of gold has fallen 47 per cent in four years. Measured by other commodities the value of gold has fallen 50 per cent. The inference from these figures is that our high prices are not due so much to an increase in the value of other commodities, but to a decrease in the value of the gold dollar. It takes more gold dollars to buy things because gold is cheap.

The value of gold, like the value of every other commodity, depends on the ratio between the demand for it and the supply of it. The word "supply," as here used, does not mean the whole stock of gold, but only so much of it as is being offered in the market in exchange for other things, the same as the supply of a commodity does not mean all of that commodity in existence, but only so much of it as is being offered in the market. The man who has wheat and is not offering it in the market is contributing nothing to the supply of wheat. The man who has gold and is not offering it in the market is contributing nothing to the supply of gold. The supply of gold must be only a very small fraction of the world's stock of gold.

The French are a hoarding people. In 1914 they had $120 of gold per family. This was the amount of gold per family required in 1914 to satisfy the French demand for gold. But all this gold was not being offered in the market at once, and was not "supply." The average French family probably did not spend in a day more than two dollars of all kinds of French money, silver, paper and gold. Its contribution to the supply of gold would perhaps not average more than one dollar at any time. But when France was invaded, the desire of the French people to have the things of war was much stronger than their desire to keep gold. They offered most of their gold in the markets in exchange for the things needed for war. The French contributed most of their gold, which had not been supplied before, to the supply of gold in neutral countries and reduced their own demand to nothing. The other belligerent nations did the same. The supply of gold in our markets has been greatly increased since the war started.

The demand for gold is for use in the arts and for use as money. Our demand for gold as money is because we can buy things with it. If we could not buy things with gold coin, or with money, the fancy definitions that it is the "measure of value" or "the medium of exchange" are nonsense. An assessor, appraising the property in his district, uses the dollar as his measure of value. He estimates how many dollars it would take to *buy* each piece of property. He makes no demand for gold coin or for money. There is no demand for money as a measure of value.

A tailor sells a coat for ten dollars and with the money buys a pair of shoes. He has made a compound exchange—coat for shoes—consisting of two simple exchanges: coat for money and money for shoes. Because money is the middle term of such compound exchanges we call money the "medium of exchange." If the tailor could not *buy* shoes, or other things that he wanted with money, then money would not be a medium of exchange. Notice, too, that there is no demand for money as a medium of exchange. A desire to have coupled with the ability to purchase is essential to the demand. The tailor did not desire to have money, for he preferred to have shoes.

With the purchasing power of a ten-dollar coat he could not make a demand for ten dollars in money and also for ten dollars worth of shoes. His purchasing power is all exhausted to get shoes. As there is no demand for money as a medium of exchange, the demand for money does not, as frequently stated, depend on the volume of exchanges to be effected or on the volume of trade.

We want gold then for money and make a demand for it, because we can buy things with it. If we can buy things with paper money and use paper money as a substitute for gold, we will have less need of gold and make less of a demand for it, the same as if we use oleomargarine for butter, we will make less of a demand for butter. When foreigners were pouring gold into our markets and increasing our supply of gold, we had a considerable amount of uncovered paper in circulation. If as the gold flowed in we had withdrawn this uncovered paper, and used gold for money, either as coin or gold certificates, our demand for gold would have kept pace with the supply and the value of gold would not have fallen as it did. But we persisted in using the substitute as money when we had plenty of gold for that purpost. We have done even worse. We have, for example, withdrawn from circulation about a billion and a half of gold coin and gold certificates and substituted Federal Reserve notes therefor. The ratio of gold reserve to Federal Reserve notes in circulation is 60 per cent. For every dollar of Federal Reserve notes in circulation we need and make a demand for only sixty cents of gold. For every dollar of coin or gold certificates in circulation we needed and made a demand for a dollar in gold. For every dollar of Federal Reserve notes substituted for coin or gold certificates then, our demand for gold is reduced forty cents. By the substitution of about a billion and a half of Federal Reserve notes for that amount of gold and gold certificates, which we were using as money, our demand for gold has been decreased about $600 000,000.

In his address at Columbus, Ohio, Governor Harding of the Federal Reserve Board stated that the embargo was put on gold to prevent a disastrous contraction of the currency. There is always an unpleasantness caused by a contraction of the currency, the same as there is by taking a dose of medicine. But a contraction of the currency more than a years ago would have saved us from the vastly more disastrous consequences from which we are suffering and are yet to suffer by our inflated currency. Gold will not be exported unless it is worth more in the foreign than in the home markets. If gold is going out of the country, in excessively large quantities it is because we are cheapening it at home by using too much uncovered paper as a substitute for gold. In order to retain the gold, or enough of it to maintain the gold standard, we must make it worth as much here as it is worth abroad. We must raise its value by increasing our demand for it. We must quit using so much of the substitute—the uncovered paper—so that we will have more need of gold. It seems a self-evident proposition that the embargo on gold cheapens gold, for it retains in our home markets a surplus of supply and cuts off some of the demand.

It is the policy pursued by those who control our currency that has greatly cheapened gold and made its production unprofitable. They have done the things that they ought not to have done and left undone the things that they ought to have done. And the producers of gold are by no means the only ones that have been hard hit by this perverse policy. Millions of us have been robbed by it, because of the excessive prices caused by the cheapening of gold, and many millions more will be robbed and ruined when we return to a sane currency and prices fall because of the increase in the value of gold.

In view of the tempest of anarchy and mobocracy which is sweeping over Europe and which may hit us, we cannot be sure of what is going to happen, but only make a guess as to what is probable. We may expect that the French hoarding instinct will reassert itself and that France will make a great demand for gold. England and her provinces, which have been adopting every temporary expedient they can think of to maintain the gold standard, will, we may expect, want more gold and make a demand for it, to ensure the maintenance of the gold standard. Before the late revolution in Germany, where the mark is greatly depreciated, we would have expected that Germany would want more gold to return to the gold standard, but now with the mob in control, it is uncertain what Germany will do. Russia for a long time, probably, will use her depreciated paper ruble as money and make little, if any, demand for gold. What we of the United States, with our crude but popular notion that there can't be too much money, will do is uncertain. One thing is certain though. We cannot have a successful foreign trade with things as they are. Foreigners will not buy of us and pay our present excessive high prices. They will not give us ten dollars for a barrel of flour if they can buy it elsewhere for six. Foreigners will not sell to us unless we pay them in gold when they ask for it. If they cannot get gold of us when they want it, they will take their trade to countries where they can get it. Men always prefer to deal with those who pay in money rather than with those who pay only in truck.

If we want foreign trade, then we must remove our embargo on gold. Foreigners will want gold of us because we have a surplus supply of it and gold with us is cheap. To retain enough of our gold to maintain the gold standard we must enhance its value by making a greater demand for it. We can do this only in one way: By using less of uncovered paper as a substitute for gold. If gold is being exported in large amounts, we may be sure that it is driven out by Gresham's law, because we are using too much uncovered paper. There will have to be a contraction, probably, a great contraction, of our currency and a consequent fall in prices with a rise in the value of purchasing power of gold. I can see no escape from it. We must take our medicine and suffer the hardships inflicted on us by the mistaken policy with which our currency has been managed. But what will be a great loss to the people generally will be a gain to the producers of gold. The value of gold will go up, the cost of producing it, of material and labor will go down, and business of gold mining will be profitable.

Miss Bertie W. Beveridge, of the Staff of the Bureau of Mines, recently was married to Maj Francis E. Haag.

BITUMINOUS STORAGE RESTRICTIONS REMOVED

All storage restrictions on bituminous coal have been removed by the United States Fuel Administration in conformity to the action of the War Industries Board in cancelling its preferential industries list. Anthracite coal is not affected, however, by the ruling of the Fuel Administration.

Every industry and every householder in the country now may store as much bituminous coal as desired or obtainable, as the action of the War Industries Board removes the necessity for the Fuel Administration to distinguish longer among different classes of industrial plants.

The restrictions just raised provided for the accumulation by the consumers in the preference classes defined by the War Industries Board, of reserve stocks of bituminous coal, in accordance with their location in relation to various mine fields and their classification on the preference schedule.

All industries located farthest from distribution points, particularly those in New England and in the northwest are found not only to be well stocked, in accordance with Fuel Administration specifications, but in many cases have surpluses above those amounts.

ADJUSTMENT IS MADE OF ANTHRACITE WAGE SCALE

A readjustment of wages in the anthracite coal industry in order to stabilize them with reference to the bituminous and other related industries was ordered Oct. 31 by the United States Fuel Administrator, Harry A. Garfield.

The readjustment was made effective Nov. 1 and in general terms provides for an average wage increase of $1 a day. The order embodies without change recommendations for wage stabilization agreed upon by miners and mine operators after several conferences, and submitted by them for the information of the Conference of National Labor Adjusting Agencies. This conference after considering the information submitted in the light of data on other industries approved the schedule and referred it to Secretary of Labor Wilson, who in turn transmitted it to Mr. Garfield.

The new wage schedule is as follows:

(a) Contract hand and machine miners shall be paid an advance of 40 per cent on their gross earnings.

(b) Consideration miners shall be paid an advance of 25 per cent plus $1 per day for each day worked.

(c) Contract miners laborers shall be paid an advance of 40 per cent on their earnings. As this increase of 10 per cent over the agreement of Nov. 17, 1917 is less than $1 per basic shift, the difference between said increase of 10 per cent in the rate and $1 per basic shift shall be assumed by the operator.

(d) Consideration miners laborers shall be paid an advance of 25 per cent plus $1 per day for each day worked.

(e) Day machine miners laborers who receive not less than $2.72 per day shall be paid an advance of 25 per cent plus $1 per day for each day worked.

(f) Outside blacksmiths, carpenters, electricians, machinists, firemen, hoisting engineers on shafts and slopes where employment is limited by law or by the award of the Anthracite Coal Strike Commission to (8) eight hours per day, and engineers working on a 12-hour shift basis, shall be paid an advance of $2 per day for each day worked. All other outside company men who received $1.54 or more per day shall be paid an advance of $1.80 per day each day worked.

(g) Inside engineers and pumpmen working on a 12-hour shift basis shall be paid an advance of $2.20 per day for each day worked. All other inside company men who received $1.54 or more per day shall be paid an advance of $2 per day for each day worked.

(h) All employees paid by the day who received less than $1.54 per day shall be paid an advance of $1.20 per day for each day worked.

(i) Monthly men coming under the agreement of May 5, 1916, shall receive an advance per day for each day worked, equivalent to that provided for their respective occupations under paragraphs (f) and (g).

(j) The advances of $2.20 per day, $2 per day, $1.80 per day, $1.20 per day and 25 per cent plus $1 per day provided above, are to be applied to a day, whether eight hours or more, as established under the agreement of May 5, 1916; any proportionate part of a day to be paid a proportionate part of the advances herein provided.

(k) The employees of stripping contractors, paid by the day, working on the basis of a nine-hour or 10-hour shift, shall be paid the same increase per hour for each hour worked that is provided for outside company men working on an eight-hour basis.

The increases are based on the wage scale of May 5, 1916, which is the contract under which miners and mine operators are operating and which was modified May 17, and Dec. 17, 1917, on account of war conditions.

Wages in various mines are not identical to the cent, and an absolute interpretation of the scale in dollars and cents as to every mine worker is therefore impossible. A memorandum was submitted to the Conference of National Labor Adjusting Agencies, as being fairly typical of the general situation. In some instances the wage increase received will be materially less, and in some instances materially more, than the tabulation, which is as follows:

OUTSIDE

Occupation	*Bose, cents per hour*	*Adjustment, cents per hour*	*Rate, cents per hour*
Blacksmith	32–35	25	57–60
Carpenter	32–35	25	57–60
Shaft engineers	36–40	25	61–65
Firemen	23–28	25	48–53
Machinery repairmen	30–32	25	55–57
Laborers	195–235	225	42–46

INSIDE

	Base	*Adjustment*	*Rate per day*
Contract miners, average per start, August 18	$5.63	$1.00	$6.63
	Per hour		
Contract laborers	$0.26–$0.40	30%+$1 00	$3.70–$5.16
Consideration miners	$0.40–$0.45	25%+$1.00	$5 00–$5.50
		per hour	*Per hour*
Company miners	$0.32–$0.35	$0.25	$0.57–$0.60
Inside laborers	$0.26–$0.29	$0.25	$0.51–$0.54

Wages of the anthracite miners, according to the findings of the conference, have been on a basis which tended to encourage the movement of miners to other occupations.

Miners Work Sunday to Beat Epidemic

Making good on their pledge to overcome, as far as possible, the loss in tonnage due to influenza, approximately 10,000 mine workers in Central Pennsylvania reported for work on a recent Sunday and loaded 50,000 tons, according to a report from Charles O'Neill, production manager for that district, to the United States Fuel Administration. The men who worked were volunteers, and it is expected that their example will have its effect in other districts.

W. L. Byers, production manager in the Connellsville District, reports that for the week ended October 26 production was 686,151 tons, the lowest figure for the month and 27,966 tons less than for the week preceding. This decrease is traced directly to the influenza, which has not only hampered the mine labor supply but which has cut into the working forces of the railroads and so affected car supply.

Coke workers have been particularly hard hit by the epidemic, and hundreds have been patients in the temporary hospitals opened by the operators. Volunteer nurses have been working in the plant hospitals, but an appeal has been made to the Pennsylvania health authorities, as well as to the United States Public Health Service, for doctors and nurses.

From the production district comprising Iowa, Missouri, eastern Arkansas, Oklahoma and Texas comes the report that influenza is having a depressing effect on output.

SENATE COAL INVESTIGATION REOPENED—NEALE TESTIFIES

Through a series of rapid-fire questions to officials of the Fuel Administration, Senator Reed attempted to establish that the coal shortage last year was due to "the cupidity of anthracite coal operators."

Acting on reports that the country would experience another coal shortage this winter, Senator Reed reopened the Senate investigation of the Fuel Administration by the Manufactures Committee, of which he is the chairman.

Mr. Reed attempted to establish that:

1. The coal shortage could have been met last year by washing culm banks.
2. Culm banks were not washed to capacity because coal operators feared they would "flood the market," thus reducing prices.
3. The Fuel Administration did not use its authority to compel coal operators to work culm banks.
4. The Fuel Administration either is "controlled or worked" by the anthracite operators.

That the threat of coal shortage this year is not entirely mythical was established by production figures submitted by James B. Neale, Director of Production of the Fuel Administration. He showed that anthracite production this year was 70,206,349 tons, as compared with 70,570,763 tons, a loss of 364,414 tons.

The situation is being met, Mr. Neale said, by shipping more anthracite to eastern cities this year than last, and compelling Iowa and other mid-western States to burn bituminous coal produced in that region. Bituminous production this year was 13 per cent higher than last year and larger quantities of bituminous were being shipped east for industrial use, Mr. Neale added.

COAL PRODUCTION SLUMPS DECIDEDLY IN WEEK ENDED NOV. 16

A further decrease in coal production, both bituminous and anthracite, is shown in the report by the United States Fuel Administration for the week ended November 16. The bituminous production fell off 661,000 net tons and anthracite 182,000 net tons from the previous week's figures.

Improvement in the influenza situation led to expectations that bituminous production for the week would show an increase, but the Monday holiday and relaxation in war tension offset the anticipated benefits from better health conditions. The improvement in anthracite production for the week ended November 9 was only temporary, the decrease for the week ended November 16 being 11.5 per cent.

The decrease in bituminous coal mined in the past seven weeks, from the high mark of September 28, has been 25 per cent, and production now is in some districts below current consumption. However, it is likely the low point for the present has been reached.

The output of bituminous for the week ended November 16 wa sestimated at 9,707,000 net tons, a decrease of 661,000 net tons, or 6.4 per cent, compared with the week of November 9, and a decrease of 1,572,000 net tons, or 14 per cent, compared with the week of November 16, 1917. The average daily production during the current week is estimated at 1,618,000 net tons, as compared with 1,965,000 net tons for the coal year to date and 1,762,000 for the same period of 1917. The total production from April 1 to November 16 is estimated at 389,024,000 net tons, an increase over the corresponding period of last year of 40,213,000 net tons, or 11.5 per cent.

The production of anthracite for the current week was 1,405,000 net tons, a decrease of 182,000 net tons, or 11.5 per cent, from the week ended November 9. This output also fell below the corresponding week of 1917 by 636,000 net tons, or 31.2 per cent. The daily average during the week ended November 16 is estimated at 234,000 net tons, as compared with 333,000 net tons during the coal year of 1917, which practically represents the average daily requirements during the year. The total production from April 1 to date for this year is estimated at 63,581,000 net tons, a decrease of 1,340,000 net tons, or approximately 3 per cent, compared with the same period of 1917.

During the week ended November 9 the total loss by all causes from 100 per cent production was 22.4 per cent, of which labor shortage comprised 14.5 per cent, car shortage 2.6 per cent, mine disability 3.2 per cent, and all other causes 2.1 per cent.

ANTHRACITE WORKERS TO GET QUICK RELEASE FROM ARMY

To facilitate the movement back to the mines of those anthracite mine workers now in the United States Army, who will be immediately discharged, to return to the anthracite industry, the United States Fuel Administration has sent representatives to Camp Dix, New Jersey; Camp Meade, Maryland, and Camps Lee and Humphreys, Virginia.

The Fuel Administration representatives will give to the anthracite mine workers who are offered discharge all possible information as to the opportunities for employment and wage scales in effect, and assist in a general way with the readjustment of these men to their pre-war industrial status.

While Fuel Administration representatives, who were equipped with credentials, were received at the four camps named, the Secretary of War took all precautions in behalf of the soldier-miners by ordering that no representatives of individual companies be allowed to enter the camps to engage the men and that no contracts be made for any particular producers.

Orders authorizing the segregation of anthracite coal mine worers for discharge on condition they would resume their former occupation were sent to all camps east of the Mississippi river. Reports of the number of anthracite mine workers in each camp and the willingness of the men to resume their former work, if dicharged, will be made to Washington. No man who is physically unfit for duty in the class in which he was rated when he entered the service will be discharged, and everyone who seeks to leave the Army under this order must make a written request, stating in it his intention to return to the anthracite industry if it is granted.

ILLINOIS AND INDIANA SOFT COAL USES DISCUSSED

To further the educational campaign in Illinois, Indiana, Ohio, Michigan and Wisconsin, and to confer with the state administrators and local fuel officials on the use of Indiana and Illinois bituminous coal for domestic purposes, instead of anthracite and Pocahontas coal as heretofore, Thomas C. Mahady, Domestic Fuel Engineer of the United States Fuel Administration, made a ten days' trip through those states. Meetings were held at Chicago, Columbus, Milwaukee, Indianapolis and Detroit and the best and most efficient means of using Indiana and Illinois soft coal in kitchen ranges and converting base burner stoves to soft coal heaters, with the most economic use of fuel, were discussed.

WOMAN RECEIVES IMPORTANT BUREAU OF MINES APPOINTMENT

Miss Helen E. Guyer is the first woman to be assigned by the Bureau of Mines to a position of such importance as chief clerk at an experiment station. Miss Guyer recently was made chief clerk of the station at Tucson.

Miss Guyer is a native of Boston but received her technical education at the University of Illinois. After finishing her course there, she became an assistant in the chemical division of the University. In 1916, Miss Guyer came to Washington with the Bureau of Mines.

No Quicksilver Price Fixing

At a meeting between the Price Fixing Committee and the producers of quicksilver, it was agreed that there was no present necessity for the fixing of maximum prices upon quicksilver by the Price Fixing Committee.

This should not be construed to affect in any way the agreements now existing between the producers of quicksilver and the Nonferrous Metals Section of the War Industries Board.

New Fuel Administrator for Mississippi

W. A. Scott, mayor of Jackson, has been appointed Fuel Administrator for Mississippi, filling the vacancy caused by the death of C. L. Townes.

PERSONALS

Bulkelley Wells, of Denver, Colo., is in Washington for a conference with the Gold Committee recently appointed by Mr. McAdoo. Mr. Wells is a Director of the American Mining Congress and also Governor of the Colorado Chapter of that organization.

Emmett D. Boyle, Governor of Nevada, is spending several weeks in Washington in the interest of the Gold Producers. Governor Boyle is a member of the committee appointed by Secretary McAdoo.

Harry D. Nims, formerly Assistant Fuel Administrator, dropped his work at the Officers Training School at Fort Monroe, with the signing of the armistice and has resumed his law practice at 32 Nassau St., New York City.

J. R. Bent, Oglesby, Illinois, was a caller at the offices of the American Mining Congress, last month. Mr. Bent stopped in Washington for a day, enroute to New York and other eastern points.

L. A. Friedman, of Lovelock, Nevada, has returned to his home. Mr. Friedman spent several days in Washington and New York.

Walter Douglas is again in New York after spending several weeks at the properties of the Phelps-Dodge Corporation, in Arizona.

W. G. Orem, of Salt Lake City, Utah, has returned to his home after spending several days in the east.

Victor Rakowsky of Joplin, Missouri, spent several days in Washington during the month.

O. F. Brinton, formerly of Joplin, Mo., now a Captain in the Engineers' Corps, U. S. Army, is stationed at Camp Humphries.

Courtenay DeKalb is in Washington looking after the interests of the Chrome producers of California. Mr. DeKalb is Associate Editor of the Mining & Scientific Press of San Francisco.

Dr. Henry Mace Payne, of Pittsburgh, Pa., spent several days in Washington during the month, assisting the Ordnance Department in Siberian matters.

John C. Barnett is again in Washington after several weeks' stay at his home, Denver, Colo.

Victor Brandt, Tonopah, Nevada, was in Washington several days during the month.

Platinum Off Conservation List

The War Trade Board announces the removal of the following commodities from the Export Conservation List, effective Nov. 20, 1918: Dental platinum; iridium, palladium, platinum, rhodium.

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